Five-Year Review Report

for
Lakeland Disposal Landfill Superfund Site
Kosciusko County
Claypool, Indiana

August 2005

PREPARED BY:

United States Environmental Protection Agency
Region 5
Chicago, Illinois

Approved by:

for Richard C. Karl, Director
Superfund Division

Date:

8/12/05

Table of Contents

List of Acronyms

ARAR	Applicable or Relevant and Appropriate Requirement
CAC	Chronic Aquatic Criteria
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
cy	Cubic Yards
EPA	United States Environmental Protection Agency
HDPE	High Density Polyethylene
IDEM	Indiana Department of Environmental Management
ISBH	Indiana State Board of Health
LEL	Lower Explosive Limit
LLDPE	Linear Low-Density Polyethylene
LTTD	Low Temperature Thermal Desorption
MCL	Maximum Contaminant Level
NCP	National Contingency Plan
NPDES	National Pollution Discharge Elimination System
NPL	National Priorities List
O&M	Operation and Maintenance
PRP	Potentially Responsible Party
RAO	Remedial Action Objective
RCRA	Resource Conservation and Recovery Act
RD/RA	Remedial Design/Remedial Action
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
SVOC	Semi-Volatile Organic Compound
TCLP	Toxic Characteristic Leaching Procedure
UAO	Unilateral Administrative Order
VOC	Volatile Organic Compound

Executive Summary

The five-year review of the Lakeland Disposal Landfill site in Claypool, Indiana was completed in August, 2005. The remedy is protective of human health and the environment in the short term. There are no current exposure pathways and the remedy appears to be functioning as designed. The landfill cap, slurry wall, groundwater collection and treatment system, and on-site treatment of Waste Disposal Area 2 controls the source of contamination and has achieved the remedial objectives to minimize the migration of contaminants to groundwater and surface water and prevent direct contact with, or ingestion of, contaminants in soils and sediments. A few deficiencies that impact the protectiveness of the remedy were noted.

Both the Health and Safety Plan and the Contingency Plan are in place, sufficient to control risks, and properly implemented. The remedy for the Lakeland Disposal Landfill Superfund Site (the site) includes a landfill cap/containment, access controls, institutional controls, wetland mitigation and a groundwater collection and treatment system.

The Indiana Department of Environmental Management (IDEM) in cooperation with the United States Environmental Protection Agency (EPA) completed oversight of all major construction activities for the site.

The site is located approximately 3.5 miles northwest of Claypool, Indiana. The site is located in Section 12, Township 31 North, Range 5 East, Kosciusko County, Indiana and is bounded on the west by County Road 450 West. The site consists of approximately 39 acres. The site is a former landfill that was operated from June 1974 to December 1978 by Lakeland Disposal Service, Inc. Prior to 1974, the site was used for agricultural purposes. During its period of operation, the landfill accepted general refuse (e.g., plastic, metal, wood, leaves, paper and cardboard) and certain industrial wastes such as paint sludges, hydroxides and solvents. The southern half of the landfill is surrounded by agricultural land. An agricultural drainage ditch, called Sloan Ditch, runs parallel to the eastern and northern edges of the site. Several wetland areas exist along Sloan Ditch. Wooded areas are located east of the landfill along Sloan Ditch and the adjacent wetlands.

The site achieved construction completion in September 2002. The assessment of this five-year review found that the remedy was constructed in accordance with the requirements of the September 28, 1993, Record of Decision (ROD) and the October 15, 1998, ROD Amendment. The remedy is protective of human health and the environment in the short term and there are no current exposure pathways and the remedy appears to be functioning as designed. The landfill cap has been constructed over all the wastes and a groundwater treatment system is operating as intended.

Five-Year Review Summary Form

SITE IDENTIFICATION		
Site name *(from WasteLAN)*: Lakeland Disposal Landfill		
EPA ID *(from WasteLAN)*: IND064703200		
Region: V	**State:** Indiana	**City/County:** Claypool/Kosciusko

SITE STATUS	
NPL status: ✖ Final ☐ Deleted ☐ Other (specify)	
Remediation status (choose all that apply): ☐ Under Construction ✖ Operating ☐ Complete	
Multiple OUs? YES NO X	**Construction completion date:** 9-28-02
Has site been put into reuse? ☐ YES ✖ NO	

REVIEW STATUS	
Reviewing agency: ✖ EPA **X** State ☐ Tribe ☐ Other Federal Agency	
Author name: Scott Hansen	
Author title: Remedial Project Manager	**Author affiliation:** EPA Region V
Review period: 8/14/2004 - 8/14/2005	
Date(s) of site inspection: 6/21/2005	
Type of review: ✖ Statutory ☐ Policy (☐ Post-SARA ☐ Pre-Sara ☐ NPL-Removal only ☐ Non-NPL Remedial Action Site ☐ NPL State/Tribe-lead ☐ Regional Discretion)	
Review number: X 1(first) 2 (second) ☐ 3 (third) ☐ Other (specify)	
Triggering action: Actual RA Onsite Construction at OU # ___ X Actual RA Start at OU# ___ ☐ Construction Completion Previous Five-Year Review Report ☐ Other (specify)	
Triggering action date *(from WasteLAN)*: 8/14/2000	
Due date *(five years after triggering action date)*: 8/14/2005	

Five-Year Review Summary Form, cont'd.

Issues:

1) Institutional control not yet put in place on the Montel property.

2) Holes in final protective layer cover from burrowing animals.

3) Dead trees on the side slopes of the constructed wetland.

Recommendations and Follow-up Actions:

1) A plan to implement the remaining institutional control will be developed within 6 months (February 2006); institutional control will be implemented according to the plan.

2) Fill holes with bentonite.

3) Replace dead trees.

Protectiveness Statement(s):

The remedy is protective of human health and the environment in the short term. There are no current exposure pathways and the remedy appears to be functioning as designed. The landfill cap, slurry wall, groundwater collection and treatment system, and on-site treatment of Waste Disposal Area 2 controls the source of contamination and has achieved the remedial objectives to minimize the migration of contaminants to groundwater and surface water and prevent direct contact with, or ingestion of, contaminants in soils and sediments. Long-term protectiveness of the remedial action will be achieved when cleanup goals are met and when the one remaining institutional control is implemented.

Other Comments:

As mentioned above, one of the institutional controls has not been implemented. The landfill site is currently owned by four different individuals. Three of the property owners have restrictive covenants (see Attachment 4) in place, but the Montel property does not have a restrictive covenant implemented. The restrictive covenants will prevent the use of the capped area of the site for any activity that interferes with the performance of the remedy, or which will result in the exposure of contaminants to humans or the environment. Such restrictions include, but are not limited to, drilling, digging, building, or the installation, construction, removal, or use of any buildings, wells, pipes, roads, ditches, or any other structures on the capped area.

LAKELAND DISPOSAL LANDFILL SITE
CLAYPOOL, INDIANA
FIVE YEAR REVIEW REPORT

I. INTRODUCTION

The purpose of the five-year review is to determine whether the remedy at a site is protective of human health and the environment. The methods, findings, and conclusions of reviews are documented in Five-Year Review reports. In addition, Five-Year Review reports identify issues found during the review, if any, and identify recommendations to address them.

EPA is preparing this Five-Year Review report pursuant to Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) §121 and the National Contingency Plan (NCP). CERCLA §121 states:

If the President selects a remedial action that results in any hazardous substances, pollutants, or contaminants remaining at the site, the President shall review such remedial action no less often than each five years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented. In addition, if upon such review it is the judgement of the President that action is appropriate at such site in accordance with section [104] or [106], the President shall take or require such action. The President shall report to the Congress a list of facilities for which such review is required, the results of all such reviews, and any actions taken as a result of such reviews.

EPA interpreted this requirement further in the NCP; 40 CFR §300.430(f)(4)(ii) states:

If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such action no less often than every five years after the initiation of the selected remedial action.

EPA, Region 5, is conducting this five-year review of the remedy implemented at the Lakeland Disposal Landfill Superfund Site in Claypool, Indiana. This review was conducted by the Remedial Project Manager for the site. This report documents the results of the review.

The triggering action for this statutory review is the start of Remedial Action which was on August 14, 2000. The five-year review is required due to the fact that hazardous substances, pollutants, or contaminants remain at the site at levels which do not allow for unlimited use and unrestricted exposure.

II. SITE CHRONOLOGY

Table 1 - Chronology of Site Events

EVENT	*DATE*
Initial Discovery of Problem	1977
Proposed on National Priorities List (NPL)	June, 1988
Listed on NPL	March 31, 1989
RI/FS completion (entire site)	September 28, 1993
ROD (entire site)	September 28, 1993
Unilateral Administrative Order (UAO) for Remedial Design/ Remedial Action (RD/RA)	April 25, 1994
ROD Amendment	October 15, 1998
RD completion (entire site)	September 19, 2002
RA Start	August 14, 2000
RA Construction Start	August 14, 2000
RA Completed	September 27, 2004
Final Inspection of Entire Site	September 27, 2004
Preliminary Close-Out Report	September 26, 2002
O&M Activities Began	September 27, 2004
First Five-Year Review	August 14, 2005
Next Five-Year Review	August 2010

III. BACKGROUND

Physical Characteristics

The site is located approximately 3.5 miles northwest of Claypool, Indiana. The site consists of approximately 39 acres. The site is located in Section 12, Township 31 North, Range 5 East, Kosciusko County, Indiana and is bounded on the west by County Road 450 West. The southern half of the landfill is surrounded by agricultural land. An agricultural drainage ditch, called Sloan Ditch, runs parallel to the eastern and northern edges of the site. Several wetland areas exist along Sloan Ditch. Wooded areas are located east of the landfill along Sloan Ditch and the adjacent wetlands. A map of the site is provided in Attachment 1.

The landfill site is fenced on all sides with locked access gates on the northwest, southeast and southwest sides of the site The only structures on site are the groundwater treatment building located on the southeast side of the site, five (5) concrete manholes that contain the extraction wells for the groundwater treatment system, gas vents, and monitoring wells. A gravel access road is located inside the fence on the southern portion of the site.

The near surface geology underlying the site can be subdivided into two unconsolidated units. In the vicinity of Sloan Ditch, a brown silty sand loam with discontinuous lenses of silty and fine coarse sand with occasional gravel occurs to a depth of approximately 15 feet below land surface. The deposit is associated with the wetland that occupies the valley crossed by Sloan Ditch. Upland of the valley, a second near surface unit consists of silt and clay loam with some sand and gravel. It extends 5 to 25 feet below the surface. This unit appears to have originated as a coarse till. The alluvial deposits and upland coarse till constitute the shallow unit (unconsolidated upper aquifer).

Underlying the shallow units is an unstratified mixture of gray inorganic silt, clay and sand with pebbles and occasional discontinuous lenses of silt and fine to coarse silty sand with variable amounts of gravel. This glacial till unit is continuous across the site. The top of the continuous till unit is found at depths of 4 to 30 feet below land surface, and is the predominant unit to a depth of at least 100 feet below land surface [the maximum depth of drilling activities during the Remedial Investigation (RI)].

Groundwater occurrence at the site is divided into two distinct hydrogeologic units: the shallow upper aquifer and the lower gravel aquifer. The lower aquifer is separated from the upper aquifer by a till unit which acts as an aquitard. The lower gravel aquifer is considered confined based on the artesian conditions found in some of the nearby regional wells. The till unit and the bedrock zone act as the upper and lower confining units to this aquifer. The groundwater flow direction at the landfill site is generally toward the east to northeast.

Land and Resource Use

Prior to 1974, this site was used for agricultural purposes and was subsequently used as a landfill from 1974 to 1978. There are approximately seven (7) residents that live within a half mile of the site. Two residents are located south of the site, three residents are west of the site and two residents are north of the site. There is no development is the surrounding area.

History of Contamination

In January 1975, the Indiana Stream Pollution Control Board issued a Solid Waste Management Permit for the operation of a sanitary landfill at the site. During its period of operation, the landfill accepted general refuse (e.g., plastic, metal, wood, leaves, paper, and cardboard) and certain specific industrial wastes. According to the Indiana State Board of Health (ISBH) records, the following known industrial wastes were disposed at the site:

- Various sludges containing mainly the hydroxides of aluminum, cadmium, chromium, copper, lead, nickel, tin, selenium, and zinc;

- cyanide, zinc, and chrome plating liquid;

- paint sludge

- sugar contaminated with bromochloromethane;

- oil and oily waste water; and

- filter sand contaminated with hydroxides of lead, zinc, copper, and chrome.

According to ISBH Records and other information, at least 18,000 drums of waste materials were disposed at the site. In addition, approximately 8,900 tons of plating sludge and more than two million gallons of plating sludge containing various hydroxide sludges of aluminum, cadmium, chromium, copper, lead, nickel, tin, selenium, and zinc were disposed at the site.

During the four years of the landfill's operation, the operator violated numerous permit regulations by improperly accepting and disposing waste material at the landfill. These violations included disposal of sludges in trenches with very little or no cover; hazardous wastes not placed in trenches; barrels of waste deposited in water and not covered; run-off water contaminated with paint sludge; sludge running out of trenches to adjacent low areas and to the adjacent stream; refuse dumped in water; liquid waste dumped into general refuse area; unauthorized oil dumping causing pollution of the adjacent stream; open burning on site; and poor surface drainage.

Initial Response

On April 4, 1977, the Indiana Stream Pollution Control Board denied a renewal of the operating permit due to failure of the landfill to maintain a minimum of 50 percent acceptable inspections over the prior two year period. The operator of the landfill appealed the denial and negotiated an Agreed Order with the State allowing the landfill to operate until May 1, 1978. After the landfill failed to close on May 1, 1978, the State initiated enforcement actions. A second Agreed Order was negotiated and the landfill closed in December 1978. The State required two groundwater monitoring wells to be installed at this time with monitoring to continue until 1983. During the period from 1978 to 1983, the State made several inspections and noted a number of leachate problems at the site. The State negotiated an amended Agreed Order in August 1981. The Order provided that the prior landfill owner was to continue groundwater monitoring at the site until September 1984, and seal any leachate seeps.

In January 1979, the site was being developed into a residential trailer park by the current owner. The State then notified the County Area Planning Commission that this was not a suitable use for the former landfill site. In November 1982, the State conducted a methane gas survey at the site and detected high methane concentrations beneath one of the mobile homes. The State filed an injunction with Kosciusko County requesting residents move from the landfill property. In March 1983, the Kosciusko County Board of Zoning Appeals ordered residents to move from the site. No one currently resides on the property.

The site was proposed for inclusion on the NPL in June 1988 and was placed on the NPL in March 1989. On May 22, 1989, a Consent Order for Remedial Investigation/Feasibility Study (RI/FS) became effective between EPA, IDEM and a group of Potentially Responsible Parties (PRPs). The RI/FS was completed in 1993.

The following is a summary of the major findings from the RI conducted at the site.

- Waste material was placed in a haphazard manner within what are assumed to be eight separate waste disposal areas positioned irregularly across the site.

- Buried waste material was found at depths of several inches to approximately 20 feet below grade across the landfill. The water table for the unconfined upper aquifer beneath the site is relatively shallow, thus, buried waste material exists below the water table at multiple locations across the site.

- Groundwater in the unconfined upper aquifer flows eastward towards Sloan Ditch. A continuous clay till layer, extending to depths of approximately 100 feet below grade, functions as an aquitard between the unconfined upper aquifer and a confined lower sand and gravel aquifer.

• Constituents of concern at the site include monocyclic aromatic hydrocarbons, chlorinated aliphatic hydrocarbons, ketones, tetrahydrofuran, carbon disulfide, benzoic acid, phthalate esters, naphthalene, phenols, and several metals.

• Constituents of concern associated with the buried waste material were found in subsurface soil, surface soil, shallow groundwater in the upper aquifer, leachate, and wetland sediment samples collected from the site.

• The results of the Baseline Risk Assessment indicated that the site, if not remediated, posed unacceptable risks to the public health.

Basis for Taking Action

Soil Contamination

Soil samples were collected at various locations on the site. Volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and inorganics were detected above background concentrations in the surface and subsurface soils.

Groundwater Contamination

The shallow groundwater zone beneath and downgradient from the site was impacted by waste disposal practices from the landfill. VOCs, SVOCs, inorganics and general water quality parameters were detected above background concentrations in the shallow groundwater. In the downgradient groundwater samples, concentrations of vinyl chloride, trichloroethene, 1,2-dichloroethene, antimony, and lead exceeded their primary drinking water standards [Maximum Contaminant Levels (MCLs)]. Methylene chloride was detected in the RI groundwater sample in one of the monitoring wells that exceeded its MCL. Several inorganics such as aluminum, iron, manganese, and chlorides exceeded the established secondary drinking water standards. These contaminants were detected in some of the downgradient wells installed at depths ranging from 15 to 40 feet below land surface. No Polychlorinated Biphenyls (PCBs) or pesticides were detected in any of the monitoring wells on site. No contaminants were detected above MCLs in monitoring wells installed in the lower aquifer within the site. Several inorganics such as aluminum, iron and manganese, however, exceeded the secondary drinking water standards. In addition, the results of the drinking water samples obtained from the nearby residences did not indicate the presence of any of the contaminants above MCLs. However, iron and manganese concentrations exceeded the secondary drinking water standards.

Landfill Waste Contamination

The results of test pit samples at the site indicated the presence of VOCs, SVOCs and inorganics. The results of drummed waste sample analysis in the hot-spot area (Waste Disposal Area 2, shown on Attachment 1 - Site Map) indicated high concentrations of ethylbenzene, methylene chloride, toluene, 1,1,1-trichloroethane, trichloroethene, and xylene.

Leachate Contaminants

The surface leachate seeps contained high concentrations of several VOCs, such as acetone, 2-butanone, ethylbenzene, 4-methyl-2-pentanone, tetrahydrofuran, toluene, vinyl chloride, and xylene. Significant among the SVOCs were benzoic acid, diethylphthalate, 4-methylphenol, and phenol. Also, several inorganics such as aluminum, chromium, copper, and lead were detected in the leachate which eventually discharges to Sloan Ditch.

Surface Water and Sediments in Sloan Ditch

Acetone and Di-n-butylphthalate were detected at relatively low concentrations in the surface water samples downgradient of the site. Acetone, however, was detected in one of the upgradient surface water samples. Several inorganics were also detected in the surface water samples, including copper, lead and mercury. Concentrations of mercury in surface waters adjacent to the landfill exceeded the IDEM Chronic Aquatic Criteria (CAC). Iron exceeded the established EPA water quality criteria of 1000 ug/l. These contaminants were also detected in the background surface water samples. Several inorganic constituents detected in the surface water samples, including cadmium, copper, and lead, were also detected in the surface leachate seeps which eventually discharge to Sloan Ditch.

Several VOCs, SVOCs, and inorganics were detected above background concentrations in the sediments of Sloan Ditch. Several of these constituents were also detected in the surface leachate seeps. Elevated levels of some of the inorganic contaminants detected adjacent to the landfill indicate that contaminants may have migrated from the landfill.

Wetland Sediment Samples

Several VOCs, SVOCs and inorganics were detected in the wetland sediment samples above background concentrations.

The potential risks at the site exceeded EPA's risk criteria for the reasonable maximum exposure scenarios, and thus presented unacceptable current and potential future risks to human health.

IV. REMEDIAL ACTIONS

Remedy Selection

The ROD for the Lakeland Disposal Landfill was issued by EPA on September 28, 1993 and was followed by a ROD Amendment on October 15, 1998. The remedy selected in the 1993 ROD for the site consisted of a sanitary landfill cap for surface containment of the waste material and a soil-bentonite slurry wall for containment of the on-site groundwater in the upper aquifer. In addition, the ROD provided for the removal and off-site treatment and/or disposal of any drummed and non-containerized waste material from the hot-spot area which exhibits Resource Conservation and Recovery Act (RCRA) hazardous waste characteristics. Many of the elements

of the 1993 ROD did not change. Therefore, the findings made in the 1993 ROD remained the same except for the significant changes described in the ROD Amendment. The major differences between the 1993 ROD and the 1998 ROD Amendment are as follows:

1993 ROD	1998 ROD Amendment
Waste Disposal Area 2 excavated and shipped off-site for treatment/disposal	Waste Disposal Area 2 excavated and treated on-site utilizing low temperature thermal desorption (LTTD)
Extraction wells used to contain on-site groundwater in the upper aquifer	Subsurface drain to contain on-site groundwater in the upper aquifer
Low permeability compacted clay layer for cover system design	Low-density polyethylene geomembrane to serve as a barrier layer in cover system design

The major components of the selected remedy included:

• Construction of an Indiana Sanitary Landfill Cap, in accordance with Indiana Solid Waste Management Regulations contained in 329 IAC 2-14-19 (updated 329 IAC 10) and RCRA Subtitle D cover requirements for surface containment of the waste material;

• Construction of a soil-bentonite slurry wall and extraction wells for containment of the on-site groundwater in the upper aquifer;

• Storage, treatment, if necessary, to meet National Pollution Discharge Elimination System (NPDES) requirements, and discharge of recovered groundwater;

• Excavation of material contained within Waste Disposal Area 2 with on-site treatment using LTTD;

• Fencing to prevent access, and groundwater advisories and possible well abandonment and deed restrictions to prevent future development from interfering with remedial components, as provided for by Indiana regulations;

• Construction of an adjustable weir in Sloan Ditch, if necessary, to maintain proper water levels in the adjacent wetlands;

• Excavation and removal off-site of any landfill wastes and debris encountered during excavation of the slurry wall, which exhibit RCRA hazardous waste characteristics per Toxic Characteristic Leaching Procedure (TCLP) test; and

• A wetlands assessment to determine the portions of the wetlands that are affected by the installation of the selected remedy. Based on the assessment, the RA will include a program to mitigate, replace and/or restore wetlands.

Remedy Implementation

On December 16, 1993, EPA issued special notice letters to 40 PRPs to initiate consent decree negotiations for the RD/RA phase of the landfill cleanup. No good faith offer was received. On April 25, 1994, EPA issued a UAO to five PRPs to conduct RD/RA activities.

A pre-design study investigation was completed at the site during the period of January through March 1995 to support development of the final remedial design. The pre-design study investigation consisted of a perimeter soil boring program, a comprehensive groundwater monitoring event, short-term well yield pump tests, identification of existing drain tiles, extent of waste investigation at Waste Disposal Area 2, landfill gas evaluation, borrow source investigation, wetlands delineation, air monitoring, and data validation.

Because of the duration of the project, the remedial action was divided into two phases. Phase I covered only one major component of the selected remedy: the excavation of material contained within Waste Disposal Area 2 with on-site treatment using LTTD. (The Waste Disposal Areas are shown on Attachment 1 - Site Map.) The Phase I RA began on August 14, 2000, when EPA approved the LTTD portion of the design. Phase II included all the remaining tasks of the selected remedy. The Phase II RA began in October 2001 after EPA approved the design for the groundwater containment and landfill cover system. The groundwater containment and landfill cover system remedial activities were completed in two different construction seasons (Fall 2001 and Spring 2002).

Low Temperature Thermal Desorption (LTTD)

The LTTD required by the 1998 ROD Amendment began with the excavation, segregation, and treatment of contaminated soil and waste material from Waste Disposal Area 2. Williams Environmental Services, Inc. (Williams), of Stone Mountain, Georgia, was the remediation contractor. ARCADIS of Milwaukee, Wisconsin, provided engineering oversight and monitoring during the soil remediation activities.

The purpose of the remediation activities was to treat VOC- and SVOC-impacted unsaturated soils within Waste Disposal Area 2, as well as residual waste material contained within partially intact drums present within the disposal area. This was done through excavation and on-site LTTD treatment of the impacted soils and waste materials. The remediation activities were conducted in accordance with the requirements of the Final Design Report.

The remediation of Waste Disposal Area 2 involved excavation to the base of the waste material, which generally was no greater than ten feet below initial grade. Excavation of the waste material and soil was completed using a backhoe and/or a tracked excavator. The excavated

material was then segregated to remove drum fragments and other debris that could not be processed through the LTTD unit. A total of 1,509 partially intact drums were removed during the excavation. Following the segregation step, the VOC- and SVOC-contaminated soils were processed through the LTTD unit. The LTTD process used heat (approximately 750 - 800 degrees Fahrenheit) to vaporize the organic constituents from the soils. Following a quenching step to rehydrate and cool the soils and limit fugitive dust generation, the treated soils were placed into temporary stockpiles prior to sampling to confirm that soil treatment performance standards were achieved, and the treated soils were used to backfill the excavation. Each stockpile consisted of approximately 150 to 200 tons of treated soil depending upon the feed rate and the number of hours the LTTD unit operated for each day. The organic vapors generated by the process were initially treated using two 20,000-pound carbon beds operated in parallel, but due to excessive carbon usage rates, a thermal oxidizer was installed and operated to treat the organic vapors for the second half of the project. An in-line bag house was used to remove particulates from the gas stream. Perimeter air monitoring was conducted throughout the remediation activities. Upon completion of backfilling and compaction activities, the site was graded (as necessary), and a final cover of topsoil was placed in a 6-inch layer across all areas that were a potential source of erosion. The topsoil was hydro-seeded and mulched and the silt fence was left in place to aid in the abatement of erosion. The asphalt pad used as a staging area for the LTTD unit was left in place, and was incorporated into the landfill cap. Approximately 194 cubic yards (cy) of granular fill material and 896 cy of topsoil were imported for use during restoration activities.

A total of 9,242 tons of waste and/or soil were processed through the LTTD unit during the remediation activities. Approximately 650 tons of treated soils not initially meeting performance standards were re-processed through the LTTD unit. In addition, approximately 10.84 tons of materials consisting of drum fragments, solidified paint fragments, impacted soil, cloth rags, and plastic sheeting were disposed off-site as a hazardous waste at the Michigan Disposal Waste Treatment Plant in Belleville, Michigan.

Soil-Bentonite Slurry Wall

After completion of the site preparation activities required for the fall 2001 remedial activities, ENTACT, the Respondents' primary remediation contractor, constructed a work platform for the slurry wall installation subcontractor (Geo-con). Geo-con required a level work platform, a minimum of 45 feet in width in order to excavate the slurry wall. In addition, the work platform was utilized to mix and backfill the slurry (trench spoils with bentonite and water) into the slurry trench. Geo-con mobilized to the site on October 24, 2001. Approximately 97,500 square feet (2,820 linear feet) of soil-bentonite slurry wall was installed from October 31, 2001 to December 11, 2001, along the southern, eastern, and northern boundaries of the site. The slurry wall installation consisted of excavating a 30-inch wide trench to depths ranging from 20 to 40 feet below existing grade. The slurry trench was excavated approximately 5 to 15 feet into the glacial till (silty clay) layer underlying the shallow water bearing aquifer to ensure containment of potentially impacted groundwater. When the top of the glacial till was encountered, a sample

was collected from the excavator for verification by the Engineer. The glacial till samples were collected every 50 linear feet of slurry trenching.

As the slurry trench was excavated, liquid bentonite slurry was pumped from the mix plant through piping into the slurry trench. The level of liquid slurry in the trench was maintained within 2 feet of the proposed grade. The density of the liquid slurry prevented collapse of the trench walls prior to backfilling. The backfill material was blended with soil excavated from the trench, liquid slurry, and additional powdered bentonite (which was added from "super sacks" placed along the alignment of the slurry wall). Due to the eastward flowing hydraulic gradient, it was not necessary to install the slurry wall along the western (hydraulically upgradient) site boundary.

Subsurface Drain

The subsurface drain contractor (Dewind Engineering) mobilized to the site on October 17, 2001. Dewind set up the single pass trenching equipment, unloaded and staged the concrete collection sumps, and welded the four-inch diameter SDR 11 high density polyethylene (HDPE) perforated piping to the four-inch diameter HDPE clean outs. The single pass method of subsurface pipe installation consists of a custom trenching machine (resembling a large chain saw) that excavates and utilizes a delivery system to place pipe and backfill the trench with filter gravel (bedding the pipe) at the same time.

The subsurface drain was installed to extract groundwater inside the alignment of the slurry wall. The alignment of the subsurface drain relative to the slurry wall facilitates the prevention of groundwater mounding against the slurry wall, which could potentially affect the integrity of the slurry wall. The five collection sumps along the subsurface drain are connected to individual force main pipes and electrical conduits which are routed to the groundwater treatment building. This necessitates the use of electric submersible pumps to dewater the collection sumps and transfer the recovered groundwater through the force mains to the treatment building. The subsurface drain and collection sumps were installed from October 23 to November 15, 2001.

Groundwater Treatment System

Groundwater Treatment Building

The groundwater treatment building was constructed from November 7, 2001 to January 21, 2002. The treatment building was built along the eastern edge of the property between the edge of the landfill and adjacent wetlands. The building is a 30' x 20' x 12' pre-engineered steel structure used to house equipment for the treatment of collected groundwater.

Groundwater Treatment Equipment

The groundwater treatment equipment was installed in the treatment building from February 5 to 8, 2002. The equipment consists of influent flow meters for each of the five collection

sumps, a 1,500-gallon surge tank equipped with an air compressor for aeration and precipitation of solids, four bag filtration units for removal of suspended solids, an air stripper for primary treatment of VOCs, two granular activated carbon vessels, an effluent flow totalizer, an air flow meter (at air stripper discharge stack), and the associated transfer pumps, level switches, and controls for unsupervised operation of the system. The site is a NPL site, therefore, pursuant to 327 IAC 5-2-4(5), the groundwater treatment system needs to comply with the substantive requirements of the NPDES permit process, but an actual NPDES discharge permit is not required. Discharge under NPDES Permit Discharge Standards was authorized by IDEM in letters dated August 9, 2000, and March 28, 2001 (see Attachment 3). The treated groundwater is discharged to the adjacent wetlands.

Landfill Cap

The cover system extends from near the western property boundary to beyond the limits of the slurry wall along the northern, southern, and eastern boundaries. The purpose of the landfill cover system is to prevent exposure to buried waste and leachate seeps and to allow the dissipation of landfill gas that may be generated. The landfill cap system covers approximately 22 acres and consists of a foundation layer, 40-mil linear low-density polyethylene (LLDPE) geomembrane, drainage layer, protective cover layer, topsoil layer, vegetation layer, and passive gas venting system.

Prior to constructing the foundation layer, a survey of the existing topography was performed. The surveyor (Terratorial Engineering) superimposed a coordinate grid system of 25' x 25' sections over the extent of the cover system for establishment of grades. The survey was also used to layout the locations of the anchor trench and gas vents.

Geotechnical testing of the foundation layer materials was required at a frequency of one sample per 5,000 cy of imported soil per borrow source. Testing consisted of moisture content, USCS classification, particle size, Atterburg limits, and Modified Proctor analyses as indicated in the Design documents. In addition, the foundation layer soils were required not to contain stones greater than 3-inches in diameter.

The foundation layer soils were placed in a manner to facilitate drainage and prevent surface water accumulation. The soils were placed in maximum loose lifts of 8 inches and compacted to 95 percent Modified Proctor, starting in the low-lying areas of the southern half of the landfill cover system and proceeding to the outlying southern boundaries. Placement of soils gradually moved to the northern half of the property after final foundation layer grades were confirmed at the southern half. Approximately 88,256 cy of foundation layer soils were imported from the borrow source. In addition, as an alternate, cost effective source of borrow materials for the foundation layer, foundry sand from the Dalton Foundry located in Warsaw, Indiana, was imported to the site, as approved by EPA. Unloaded piles of foundry sand were generally graded on a daily basis along the northern perimeter of the former central wetland area. TCLP metals analysis of the foundry sand was conducted regularly during importation. Approximately 10,900 tons of foundry sand were imported and utilized in the lower portions of the foundation layer.

The geomembrane layer was installed on top of the foundation layer after final foundation layer grades were confirmed and all site appurtenances (monitoring wells, gas vents, collection sumps, cleanouts, etc.) had been installed. Rolls of 40-mil LLDPE were utilized for the geomembrane layer. Prior to geomembrane deployment, the foundation layer surface was inspected by ENTACT and the geosynthetic installer (ESI) to certify that the foundation layer was free of stones larger than 1-inch in diameter and other items that would damage the geomembrane. Any materials potentially damaging to the geomembrane on the surface of the foundation layer were manually removed prior to placement of the geomembrane. In addition, any areas of the foundation layer that did not meet the 95 percent Modified Proctor or moisture content specifications were reworked.

Installation of the geomembrane layer followed completion of the foundation layer, starting at the southern half of the landfill cover system and proceeding to the north. Fugitive dust emissions were closely monitored and dust suppression was implemented to ensure the cleanliness and integrity of the geomembrane seams. The initial placement of the geomembrane commenced at the southwest corner of the site, progressing to the north and east. Each installed panel was given a number for correlation to the resin batch or roll number. Panels were deployed in a manner that alleviated damage to the geomembrane and minimized fish mouths and wrinkles. Deployment was not done during precipitation, in areas of standing water, or during high winds. Crews generally installed panels from the highest points in elevation at the site to the lowest, minimizing the possibility of water collecting under the leading edge of the LLDPE panels. In general, panels were placed so that the amount of seams were minimized and seams were oriented parallel to slopes. All panels were seamed as soon as possible after placement to minimize the number of unseamed panels exposed to potential adverse weather conditions. Seam preparation consisted of overlapping each panel 4 to 6 inches. All field seaming was done with fusion or extrusion welding methods. The majority of the seams were fusion welded. Extrusion welding was used only for repairs and to seal appurtenance penetrations (monitoring wells, gas vents, etc.). Non-destructive air pressure testing was performed in the field by the installer on all fusion welds and vacuum testing was performed on all extrusion welds. Pipe penetrations such as gas vents, sumps and vaults, clean out risers and monitoring wells were booted with field fabricated pipe boots to ensure a proper seal into the geomembrane. Geomembrane installation was completed on September 10, 2002.

The specified drainage layer component of the landfill cover system consisted of a 16-oz. non-woven geotextile cushion fabric, 6 inches of gravel, and an 8-oz. non-woven separation fabric. However, ENTACT requested to utilize a geocomposite drainage layer that consisted of an HDPE geonet with 8-oz. non-woven geotextile heat-laminated to both sides of the geonet. This request was approved by EPA. The geocomposite provides an equivalent or better drainage layer when compared to the gravel layer for the following reasons:

- Meets or exceeds the specified hydraulic conductivity;

- Provides a uniform drainage layer across the cap footprint;

- Reduces the possibility of damaging the underlying geosynthetics during installation; and

- Installation completed in a shorter time frame.

Because the elimination of the gravel drainage layer reduced the overall thickness of the cap by six inches, an additional six inches of soil was added to the protective cover layer. This ensured a final cap thickness of two feet as required by the federal and state regulations. Installation of the drainage layer began when an adequate amount of the geomembrane was installed and all seams had been non-destructively and destructively tested and determined to meet seaming requirements. The drainage layer was unrolled in a similar fashion as the geomembrane. Geocomposite panels were overlapped a minimum of 4 inches and continuously sewn together. The geocomposite installation was completed on September 11, 2002.

The installation of the protective cover layer started when an adequate amount of geocomposite drainage layer was installed. Protective cover soils were required to contain material no larger than three inches in diameter. A network of haul routes was developed starting from the western site boundary and branching in several directions to eventually provide access to all areas of the property. A low ground pressure bulldozer with less than 5 pounds per square inch ground pressure displacement was used to construct the haul routes and place the soils. The haul routes were a minimum of three (3) feet thick over the surface of the drainage layer. The soils were placed in 12-inch loose lifts and compacted to 85 percent of Modified Proctor maximum density. An independent firm tested the in-place soil density and moisture at a frequency of once per 5,000 square feet per lift installed. Construction of the protective cover layer was completed on September 27, 2002. Approximately 66,532 cy of protective cover layer soils were imported from the borrow source.

Topsoil capable of supporting vegetation was imported from an offsite borrow source and placed in a minimum loose thickness of 6 inches. Topsoil material was required to contain rocks no greater than ½ - inch and to be free of debris. Prior to the placement of topsoil, the protective cover layer surface was scarified to a minimum depth of 3 inches to achieve bonding between the topsoil and subsoil. The same equipment and techniques were used to haul, place, grade, and compact the topsoil that were used during the protective cover layer soils installation.

Seeding of the topsoil layer was performed after completion of the final grading of the topsoil layer. Seeding activities included topsoil preparation and application of seed mix. Topsoil was tilled to a minimum depth of 3 inches by disking to prepare the seedbed. The seed consisted of a mixture of tall fescue, perennial ryegrass, and ladino clover. The seed and fertilizer were mixed and applied with hydroseeding equipment. Straw mulch and tackifier were applied the same day as seed placement.

Final grading of the landfill cover system was done to facilitate the flow of stormwater. The landfill cap, as designed and constructed, is divided into four drainage areas that direct stormwater as a sheet flow toward the perimeter drainage swales. The perimeter drainage swales were constructed by cutting a "V" trench with 2:1 slopes around the perimeter of the landfill.

Stormwater on the northeast and southeast sides of the landfill flows toward the drainage swales and is directed to one of five discharge aprons. The aprons were constructed with 5-foot wide bases with 2:1 side slopes. The aprons are sloped to promote drainage from the landfill perimeter drainage swale to the adjacent wetlands. Stormwater in the northwest and southwest portions of the landfill flows toward a perimeter stormwater ditch along County Road 450W. This stormwater eventually drains to a 36-inch diameter pre-cast concrete catch basin installed on the east side of County Road 450W. The purpose of the drainage swales is to manage surface water infiltration into the landfill, minimize landfill surface erosion, and direct infiltration away from known waste disposal areas.

A passive gas venting system was installed as placement of the foundation layer progressed. Eleven (11) gas vents consisting of 8-inch HDPE risers with four (4) 4-inch HDPE perforated gas collection pipes were fabricated. The 4-inch HDPE perforated collection pipes were embedded in one foot of geotextile-wrapped gravel. The 8-inch HDPE capped risers extend a minimum of one foot into the encountered waste (if encountered). A turbine ventilator was placed at the top of the risers to vent off gas that is generated. Gas vent penetrations through the 40-mil LLDPE geomembrane were fitted with field fabricated pipe boots and extrusion welded in the geomembrane.

Wetland Mitigation

Installation of the landfill cap resulted in filling of three existing wetland areas at the site. Approximately 1.6 acres of palustrine emergent wetlands and 1 acre of palustrine scrub/shrub wetlands were filled in to facilitate the required landfill cap. As required under Section 404 of the Clean Water Act, wetlands mitigation was necessary to replace impacted wetlands. EPA, IDEM, and the Respondents agreed to mitigation ratios (mitigated to impacted) of 1.5 to 1.0 for the palustrine emergent wetlands and 4.0 to 1.0 for the palustrine scrub/shrub wetlands. Based upon these ratios, 2.4 acres of palustrine emergent wetlands and 4.0 acres of palustrine scrub/shrub wetlands were required to satisfy the mitigation requirements.

The area for construction of the mitigation wetlands was located approximately 0.5 miles north of the site, alongside a small stream (Adams Ditch). The wetlands design incorporated open water pools and concentrated channels, as well as inundated, saturated, and dry shelves to assist in the development of all plant communities. Five 36-inch diameter corrugated metal pipes were specified for installation along Adams Ditch to divert flow into and out of the wetland. The palustrine emergent and scrub/shrub plants were specified in conjunction with the design grades to ensure vegetative survivability in dry, saturated, and inundated conditions. Due to the native topography of the selected wetlands mitigation area relative to the water levels in Adams Ditch, a significant volume of soil was removed in order to facilitate the low-lying 6.4 acre wetlands mitigation area.

ENTACT performed the wetlands mitigation bulk soil removal and grading activities in October 2002. ENTACT installed the specified water supply culverts, shaped the wetland islands, and excavated most of the trickle channels within the wetlands basin. A wetlands construction hiatus

occurred in 2003 due to contractual issues. In spring 2004, the wetlands planting and finish grading was performed by Davey Resource Group. A Conservation Easement was entered into between Kosciusko County and the Respondents on December 17, 2002 (see Attachment 6).

Other Issues

Slurry Wall Modifications

On November 20, 2001, a loss of slurry occurred during trench excavation activities. Therefore, instead of having a turn in the slurry wall, the section of slurry wall was straightened. In addition, the southern alignment of the slurry wall was shifted 10 feet to the north to accommodate the permanent access road to the groundwater treatment building.

Steel Sheet Piling

On November 28, 2001, a second slurry loss occurred during slurry wall excavation. The next day Geo-con noted that the area to the east of the slurry wall was uplifted. Subsequent analysis of the situation indicated that the slurry loss and additional backfill was caused by compression and uplift of the peat stratum. Due to the high compressibility and low strength of peat, EPA agreed to the Respondents' proposal to install a sheet pile wall to mitigate movement of the slurry wall in this area. The sheet piling was installed by Slurry Systems using a vibratory hammer. The sheet piling was driven a minimum of three (3) feet into the underlying slurry wall key material (glacial till) to ensure stability. Slurry Systems completed the sheet pile wall installation on August 14, 2002.

Groundwater Monitoring Wells

During the spring/summer 2002 remedial activities, nine groundwater monitoring wells were installed, thirteen existing monitoring wells were extended, and ten existing monitoring wells were abandoned. The groundwater monitoring well network to be used for assessing groundwater quality (i.e., to be sampled for chemical analyses) consists of 17 shallow and intermediate monitoring wells. The monitoring well network used for monitoring groundwater elevation and demonstrating inward gradients consists of shallow, intermediate and deep wells (38 wells and 5 collection sumps). The groundwater containment system monitoring program is designed to detect leaks, breaches, or degradation in the permeability of the slurry wall that could allow contaminants to migrate through the wall to surrounding groundwater at levels exceeding groundwater performance standards. Each well selected for either water level measurement or chemical sampling (or both) will be monitored according to the Operation and Maintenance Manual (O&M Manual).

Fencing

The remedy also includes physical access restriction with a six-foot high galvanized steel chain link fence with three strands of barb wire on top. Two locking double swing gates were

installed in the perimeter fence. The fence is posted with warning signs at 200-foot intervals to inform the public of potential site hazards.

The site achieved construction completion in September 2002. A Preliminary Close-Out Report was completed on September 26, 2002.

System Operations/Operation and Maintenance (O&M)

The O&M Manual provides comprehensive instructions to ensure that the following critical performance standards are verified:

- Monitoring and maintaining the required hydraulic gradients across the groundwater containment system.
- Monitoring the effectiveness of the slurry wall and subsurface drain.
- Monitoring and maintaining an effective and efficient groundwater treatment system.
- Monitoring and maintaining the landfill cover system and stormwater management system.
- Monitoring and maintaining the wetlands mitigation area.
- Monitoring and assessing the quality assurance of applicable laboratory analytical data.

The O&M Manual provides for inspection and repair of the physical components of the site after closure. Maintenance activities for the final cap include mowing, earthwork activities to correct erosion and sedimentation problems, re-vegetation of disturbed or distressed areas, regrading in settlement areas as determined necessary, and localized repairs due to intrusion, vandalism, etc. The final cap is inspected quarterly for signs of damage. The O&M activities are planned to occur for 30 years after construction completion.

Currently, O&M and monitoring activities are performed by ARCADIS, a contractor for the Respondents.

The ROD Amendment estimated that the annual O&M costs will be $142,200. Since O&M activities are conducted by the PRPs, EPA does not have access to the actual expenditures.

The O&M Manual provides the mechanism to ensure that the RA meets the long-term performance standards set forth in the ROD. Sampling and chemical analysis of groundwater and the measurement of groundwater elevations will occur as part of O&M activities following completion of the RA. A description of these field activities is provided below.

Groundwater Elevation Monitoring

Groundwater elevations at the site have been measured on a quarterly basis since December 2002, following completion of the remedial action. These measurements are taken to evaluate the effectiveness of the groundwater gradient control system. An electronic water-level indicator is used to collect static water-level measurements in the monitoring wells, piezometers, deep wells, and collection sumps during each event.

As required by the Scope of Work in the UAO, the groundwater containment and collection system must function such that a hydraulic gradient is maintained toward the interior of the landfill, with a minimum one-foot head differential across the slurry wall. To ensure compliance with this standard, groundwater elevations from five specified pairs of monitoring wells and collection sumps located along the alignment of the slurry wall are used. The five pairs of wells and sumps were selected due to their spacing along the slurry wall. Each pair consists of one well or sump located inside the perimeter of the slurry wall and one well located in close proximity, but outside of the slurry wall. Historic groundwater elevation data indicates that the minimum one-foot hydraulic gradient has been maintained toward the interior of the landfill at these monitoring locations.

Groundwater Quality Monitoring

Groundwater quality is evaluated at the site on a quarterly basis, corresponding with the groundwater elevation monitoring events. Groundwater samples have been collected from the monitoring wells on a quarterly or semi-annual basis since December 2002. The sampling network includes wells both inside the containment system and hydraulically downgradient of the containment system. The wells located downgradient of the containment system are monitored on a quarterly basis. The wells located within the containment system are monitored semi-annually. Prior to sampling, each well is low-flow purged using a peristaltic pump until the field measured parameters (pH, temperature, and specific conductivity) of the purge water have stabilized. Following stabilization of the parameters, VOCs, metals, mercury, cyanide, and chloride samples are collected.

As required by the Scope of Work in the UAO, the groundwater performance standards are the cleanup standards specified by Federal MCLs. Because of the impacts within the landfill, the point-of-compliance for determining if the standards are being met is along the downgradient edge of the slurry wall. Groundwater data collected is compared to MCLs and National Secondary Standards.

Groundwater Treatment System

The groundwater treatment system has treated and discharged approximately 10 million gallons of recovered groundwater since startup in August 2002. Discharge under NPDES Permit Discharge Standards was authorized by IDEM in letters dated August 9, 2000 and March 28, 2001 (see Attachment 3). Discharge samples are collected from the system outfall on a monthly basis for the following parameters:

- Benzene;
- Trichloroethene
- Cis-1,2-dichloroethene
- Metals (cadmium, copper, iron, lead, nickel, zinc);
- Cyanide; and
- pH (field measured).

The IDEM site discharge standards include limits for constituent daily maximum concentrations and monthly average concentrations.

Quality assurance samples are collected on a quarterly basis to assess groundwater recovered from the collection sumps and following primary treatment by the air stripper. Vapor samples are also collected from the air stripper and influent surge tank exhaust stacks and analyzed for VOCs on an annual basis, in accordance with the O&M Manual.

Landfill Gas and Air Monitoring

During groundwater sampling events, a Multi-RAE combination air monitor is used to check for any organic vapors or methane emanating from the sampled monitoring wells. To date, there have been no detectable photoionizable vapors or methane lower explosive limit (LEL) readings above background levels observed at the monitoring wells.

Perimeter air monitoring is also conducted during each groundwater sampling event using visual inspection and a Multi-RAE. The Multi-RAE is calibrated to monitor for methane and photoionizable vapors. No photoionizable vapors have been detected during the monitoring with the Multi-RAE. The methane readings have been consistently at background levels (5 - 6% of the LEL) during the perimeter monitoring walk, which is less than the contingency plan trigger level of 10% of the LEL as identified in the O&M Manual.

Landfill Cover System Inspections

Inspections are conducted regularly at the site to monitor the landfill cover system, perimeter fence and gates, and groundwater treatment and containment system. Since completion of the RA, there have been a few areas of minor erosion and ponding along the perimeter of the cover system and in the perimeter drainage swales. In addition, a few small animal holes have been noted. The minor problems were repaired shortly after they were discovered.

Institutional Controls

The remedy includes institutional controls to limit the future use of all areas of the site where RA construction has occurred. These areas include, but are not limited to, the area covered by the cap, slurry wall, interceptor trenches, extraction wells, etc. The restrictions must prevent the use of these portions of the site for any activity which will interfere with the performance of the remedy, or which will result in the exposure of contaminants to humans or the environment. Such restrictions include, but are not limited to, drilling, digging, building, or the installation,

construction, removal, or use of any buildings, wells, pipes, roads, ditches, or any other structures on the capped area. EPA is preventing all members of the general public from traversing the cap, so that the cap is not damaged. In addition, deed restrictions need to be in place as a means to impose limitations on the use of the property. The UAO requires the Respondents to use their "best efforts" to obtain the deed restrictions and restrictive covenants. However, in the event the Respondents cannot implement the final restrictive covenant, EPA and IDEM will consider additional actions as necessary to ensure that the remedy remains effective on a long-term basis.

V. FIVE-YEAR REVIEW PROCESS

Administrative Components

IDEM was notified of the initiation of the five-year review in February 2005. The Lakeland Disposal Landfill Five-Year Review team was led by Scott Hansen of EPA, Remedial Project Manager for the site, and included the IDEM Project Manager, Resa Ramsey, and Jon Akin and Edward Copeland of ARCADIS, contractor for the Respondents.

This five-year review consisted of the following activities: a review of relevant documents (see Attachment 2); interviews with representatives of the construction and the operations contractors; and a site inspection. In addition, a notice regarding the forthcoming review was placed in the local newspaper. The completed report will be placed in the information repository. Notice of completion will be placed in the local newspaper which will include a summary of the Review findings.

Community Involvement

Activities to involve the community in the five-year review process were initiated on March 8, 2005, with a notification to the local newspaper (Warsaw Times Union) near the Lakeland Disposal Landfill Superfund site. The announcement publicized the start of the five-year review and invited citizens to get involved in the process (see Attachment 5).

Since the March 8, 2005 notice, no members of the community have expressed any interest or opinion concerning the five-year review process.

Document Review

This five-year review consisted of a review of relevant documents including the O&M Manual, RA construction completion reports, evaluation reports, and monitoring data (see Attachment 2).

Data Review

The O&M Manual was submitted by the Respondents in January 2003. Also, a Quality Assurance Project Plan for groundwater sampling was submitted at that time. These documents are currently being revised and are expected to be finalized/approved by Fall 2005. Since August

2002, all of the site groundwater monitoring wells and the groundwater treatment discharge have been sampled on a regular basis. In addition, the groundwater elevations have been measured. The results are discussed below.

Groundwater Elevation Data

Using the water level data measured at five specific monitoring well and collection sump pairs located along the alignment of the slurry wall, the effectiveness of the groundwater gradient control system was evaluated. The following table presents the groundwater elevation data from January - March 2005 for the five pairs of wells and sumps and the corresponding hydraulic gradient between each pair.

Wells Inside Slurry Wall	GW Elevation at Wells Inside Slurry Wall	Wells Outside Slurry Wall	GW Elevation at Wells Outside Slurry Wall	Hydraulic Gradient Across Slurry Wall
GMMW-24	984.55'	**GMMW-6**	988.70'	**4.15'**
GMMW-25	983.84'	**GMMW-20**	992.13'	**8.29'**
CS-3	984.20'	**GMMW-21**	1000.42'	**16.22'**
CS-4	982.96'	**GMMW-22**	1003.14'	**20.18'**
GMMW-27	987.49'	**GMMW-23**	992.82'	**5.33'**

Based upon the information presented in the table above and the groundwater elevations in the collection sumps and along the subsurface drain, the slurry wall and subsurface drain are effectively functioning such that the minimum required one-foot hydraulic gradient is maintained toward the interior of the landfill.

Groundwater Quality Data

The detected concentrations of VOCs, metals, mercury, cyanide, and chloride are compared to MCLs and National Secondary Standards. None of the groundwater constituents concentrations at the monitoring wells downgradient of the slurry wall, except arsenic at GMMW-19, exceeded MCLs in the recent sampling event (March 2005). Monitoring well GMMW-19 has previously exhibited concentrations of arsenic in groundwater slightly above the corresponding MCL. Further historic data collected from other monitoring wells located upgradient and downgradient of the containment system, as wells as nearby residential potable wells, indicate arsenic may be naturally occurring at levels near or in excess of the MCL. Further statistical analysis of data from these background wells has indicated that arsenic concentrations exhibited at GMMW-19 are within their statistical tolerance limit. In addition, GMMW-19 exceeded the tolerance limit for mercury and the Mann Kendall test showed an increasing trend in the mercury data.

However, mercury concentrations in samples collected from this well are significantly less than the corresponding MCL. In accordance with the O&M Manual, EPA and IDEM were notified of the increasing trend upon its determination on May 23, 2005.

Aside from the arsenic and mercury concentrations, there have been few MCL exceedances in groundwater samples collected from the compliance wells. Benzene was previously detected in samples from GMMW-19 at concentrations slightly above the corresponding MCL. However, benzene has not been detected above the MCL at GMMW-19 since June 2004 and statistical evaluation indicates a decreasing trend in benzene concentrations at GMMW-19. The only other MCL exceedances in compliance wells have been single incidents. This includes a lead exceedance at GMMW-19 detected on March 26, 2003, and a thallium exceedance at GMMW-20 detected on March 24, 2003. These metals have not been detected in compliance well samples in excess of laboratory reporting limits on any other occasion.

In regard to the wells located within the groundwater containment system (sampled but not used for compliance evaluation), all detected constituents have exhibited a decreasing statistical trend or no statistical trend at all in the most recent statistical evaluation.

SVOCs were collected from the entire well sampling network during a June 2003 event. None of the detected SVOCs had a corresponding MCL.

Groundwater Treatment System Data

Discharge samples are collected from the system outfall on a monthly basis. There have been four discharge samples which have exceeded the IDEM daily maximum discharge authorization standards since the system was started in August 2002. All of the instances occurred between January and April 2003. The exceedances were predominantly caused by elevated levels of dissolved metals in the recovered groundwater. Following the exceedances, primary aeration was added to the influent surge tank in order to promote precipitation of the dissolved metals prior to bag filtration. Since that time, the system has met the discharge standards, with the exception of a few isolated occasions in which one constituent exceeded the monthly average discharge standard (monthly average ten times, and daily maximum four times). To help alleviate these occurrences, the air stripper is now disassembled for manual cleaning on a regular basis instead of exclusively using an acid cleaning solution.

In addition, quality assurance samples have been collected on a quarterly basis to assess groundwater recovered from the collection sumps and following primary treatment by the air stripper. The data generally indicates low VOC concentrations in the influent water from the collection sumps. Samples collected following treatment by the air stripper have exhibited few detectable VOCs, with those detected being less than MCLs and IDEM discharge authorization standards.

Conclusion

Based upon the most recent statistical evaluation conducted using groundwater sampling data, none of the compliance wells has exhibited a statistically significant increase in detected

constituent concentrations. All detected constituents follow a statistically decreasing trend or do not indicate a trend.

The treatment system has effectively treated recovered groundwater since startup, enabling the groundwater gradient control system to function.

Site Inspections

Site inspections by EPA took place in September 2002, May, June, July and September 2004, and June 2005. During the site inspections, the landfill cap and wetland was inspected and the groundwater treatment system was observed. The inspection evaluated the landfill cap, groundwater containment and treatment system, wetland mitigation, the surface water drainage, and site fencing.

The landfill cap and constructed wetland were found to be in good condition. The vegetative cover was adequate and continuing to improve or mature, however there were two distressed trees at the constructed wetland. No noticeable depressions, excessive cracks, leachate seeps, odors, or other indications of distress in the landfill cap were noted. Since completion of the RA, there have been a few areas of minor erosion and ponding along the perimeter of the cover system and in the perimeter drainage swales. In addition, a few small animal holes were noted. These minor issues were addressed and repairs made shortly after they were discovered, therefore, it does not affect the performance or integrity of the cap system.

In addition to the minor damage detailed above, visible settlement was observed adjacent to collection sump CS-4. An approximate 2-foot radial area around CS-4 had settled 9-inches, causing the geosynthetic liner boot to pull down around CS-4. The subcontractor, ENTACT, was notified of the condition and the repair was completed on November 20, 2003. No settlement has been noted in this area since the repairs.

The site is wire-fenced on all sides with locked access gates on the northwest, southwest and southeast boundary. If the landfill cap is damaged, repairs are usually pursued in the spring or fall to enhance revegetation efforts. The PRP contractor is also making periodic checks for trespassers.

No other deficiencies of the cap system or appurtenant structures, including drainage channels and access roads, were noted. With the exception of the minor erosion and ponding along the perimeter, no intrusive activities were noted on the cap system and no landfill waste or other contaminants were exposed or appeared likely to be exposed. The groundwater containment and treatment system was found to be operating and functioning properly. All monitoring well covers are intact and locked and show no signs of damage.

Interviews

The following individuals were contacted as part of the five-year review:

- Edward Copeland, ARCADIS, PRP contractor (Interviewed June 2005)
- Jon Akin, ARCADIS, PRP contractor (Interviewed June 2005)
- Resa Ramsey, IDEM, project manager (Interviewed June 2005)

Mr. Copeland, Mr. Akin, and Ms. Ramsey stated that there are no serious issues related to the site. They also stated that community interest about the site remains low. Mr. Akin conducts quarterly site inspections and he informed EPA that the site has not been disturbed. Mr. Copeland and Mr. Akin confirmed that no changes in land use were planned for the site, and that one environmental protection easement still needs to be implemented at the site.

VI. TECHNICAL ASSESSMENT

Question A: Is the remedy functioning as intended by the decision documents? Yes.

The review of site documents, applicable or relevant and appropriate requirements (ARARs), risk assumptions, and the results of the site inspection indicates that the remedy is functioning as intended by the ROD and ROD Amendment. The landfill cap has been completed, and the groundwater containment and treatment system is in place, and these factors have achieved the remedial objectives to minimize the migration of contaminants to groundwater and surface water and prevent direct contact with, or ingestion of, contaminants in soils and sediments.

HASP/Contingency Plan: Both the Health and Safety Plan (HASP) and the Contingency Plan are in place, sufficient to control risks, and properly implemented.

Implementation of Institutional Controls and Other Measures: The fence needs to be maintained. As previously discussed, one remaining institutional control has not been implemented. The remaining institutional control includes a restrictive easement on the Montel property which will prevent the use of the capped area of the site for any activity that interferes with the performance of the remedy, or which will result in the exposure of contaminants to humans or the environment. Such restrictions include, but are not limited to, drilling, digging, building, or the installation, construction, removal, or use of any buildings, wells, pipes, roads, ditches, or any other structures on the capped area. This issue needs to be resolved.

Remedial Action Performance: The landfill cap system has been effective in isolating waste and contaminants. As previously discussed, some minor erosion and ponding has occurred around the perimeter of the site but it does not affect the performance or integrity of the cap system. The groundwater containment and treatment system is effectively treating recovered groundwater. Groundwater monitoring shows that the landfill cap and groundwater containment and treatment system are functioning properly. These factors indicate that the remedial actions continue to be effective and are operating and functioning as designed.

System Operations/O&M: System operations procedures are consistent with requirements.

Cost of System Operations/O&M: As previously discussed, the O&M activities are conducted by the PRPs. EPA does not have access to their actual expenditures.

Opportunities for Optimization: Given the adequate performance at the site, this five-year review does not identify a need for optimization at this time.

Early Indicators of Potential Remedy Failure: No early indicators of potential remedy failure were noted during the review.

Question B: Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives (RAOs) used at the time of the remedy selection still valid? Yes.

Changes in Physical Conditions

There have been no changes in the physical conditions of the Lakeland Disposal Landfill site that would affect the protectiveness of the remedy.

Changes in Standards and To be Considered Requirements

As the remedial work has been completed, most ARARs for sediment, soil and debris contamination cited in the ROD and ROD Amendment have been met. There have been no changes in these ARARs and no new standards or "to be considered" (TBC) requirements affecting the protectiveness of the remedy.

Changes in Exposure Pathways, Toxicity, and Other Contaminant Characteristics

There have been no changes in the toxicity factors for the contaminants of concern that were used in the baseline risk assessment. These assumptions are considered to be conservative and reasonable in evaluating risk and developing risk-based cleanup levels. No change to these assumptions, or the cleanup levels developed from them, is warranted. There has been no change to the standardized risk assessment methodology that could affect the protectiveness of the remedy. The remedy is progressing as expected.

Question C: Has any other information come to light that could call into question the protectiveness of the remedy? No.

No other events, besides the issues mentioned in the review, have affected the protectiveness of the remedy and there is no other information that calls into question the short term and long term protectiveness of the remedy.

Technical Assessment Summary

According to the data reviewed and the site inspections, the remedy is functioning as intended by the ROD and ROD Amendment. There have been no changes in the physical conditions of the site that would affect the protectiveness of the remedy. ARARs for soil, groundwater and

sediment contamination cited in the ROD and ROD Amendment have been met. There have been no changes in the toxicity factors for the contaminants of concern that were used in the baseline risk assessment, and there have been no changes to the standardized risk assessment methodology that could affect the protectiveness of the remedy. There is no other information available that calls into question the protectiveness of the remedy.

VII. ISSUES

The primary operation performed at the site is the treatment of groundwater. As mentioned before, the equipment consists of influent flow meters for each of the five collection sumps, a 1,500-gallon surge tank equipped with an air compressor for aeration and precipitation of solids, four bag filtration units for removal of suspended solids, an air stripper for primary treatment of VOCs, the two carbon vessels, an effluent flow totalizer, an air flow meter (at air stripper discharge stack), and the associated transfer pumps, level switches, and controls for unsupervised operation of the system. During scheduled O&M maintenance activities, the PRP contractor will need to continue to ensure that all the components of the groundwater treatment system are functioning properly. All general O&M maintenance will be conducted for the next 30 years.

In addition, the remaining institutional control needs to be implemented at the site. Three restrictive covenants are in place (see Attachment 4). However, part of the site does not have a restrictive covenant. The remaining institutional control will need to include a restrictive easement or some other type of proprietary control, which will prevent the use of the capped area of the site for any activity that interferes with the performance of the remedy, or which will result in the exposure of contaminants to humans or the environment. Such restrictions include, but are not limited to, drilling, digging, building, or the installation, construction, removal, or use of any buildings, wells, pipes, roads, ditches, or any other structures on the capped area.

Table 2 - Issues

Issue	Currently Affects Protectiveness (Y/N)	Affects Future Protectiveness (Y/N)
Institutional Control - Not implemented	N	Y
Holes in the landfill protective cover layer from burrowing animals	N	Y
Some trees on wetland side slope are dead	N	N

VIII. RECOMMENDATIONS AND FOLLOW-UP ACTIONS

Table 3 - Recommendations and Follow-Up Actions

Issue	Recommend-ations/ Follow-up Actions	Party Responsible	Oversight Agency	Milestone Date	Affects Protectiveness? (Y/N)	
					Current	Future
Institutional Controls	Develop plan to implement remaining institutional control	PRP Group and EPA	EPA	Develop plan within 6 months (Feb2006)	N	Y
Holes in landfill cover	Fill holes with bentonite	PRP Group	EPA	Summer 2005	N	Y
Dead trees on wetland side slopes	Replace trees	PRP Group	EPA	Summer 2005	N	N

It is recommended that inspections be performed after extreme meteorological events, such as tornados or extreme rainfall, to ensure the integrity of the access road or cap has not been compromised. The site fencing, gates, and the existing control panel will be inspected at the same frequency as the cap system, at least 3-4 times a year. Repairs should be performed when determined through inspection.

The passive landfill gas management system consists of vent pipes located throughout the area of final cap system installation. These vents will be inspected at the same frequency and duration as the cap system.

IX. PROTECTIVENESS STATEMENT

The remedy is protective of human health and the environment in the short term. There are no current exposure pathways and the remedy appears to be functioning as designed. The landfill cap, groundwater containment and treatment system, and groundwater monitoring have achieved the remedial objectives to minimize the migration of contaminants to groundwater and surface water and prevent direct contact with, or ingestion of, contaminants in soils and sediments.

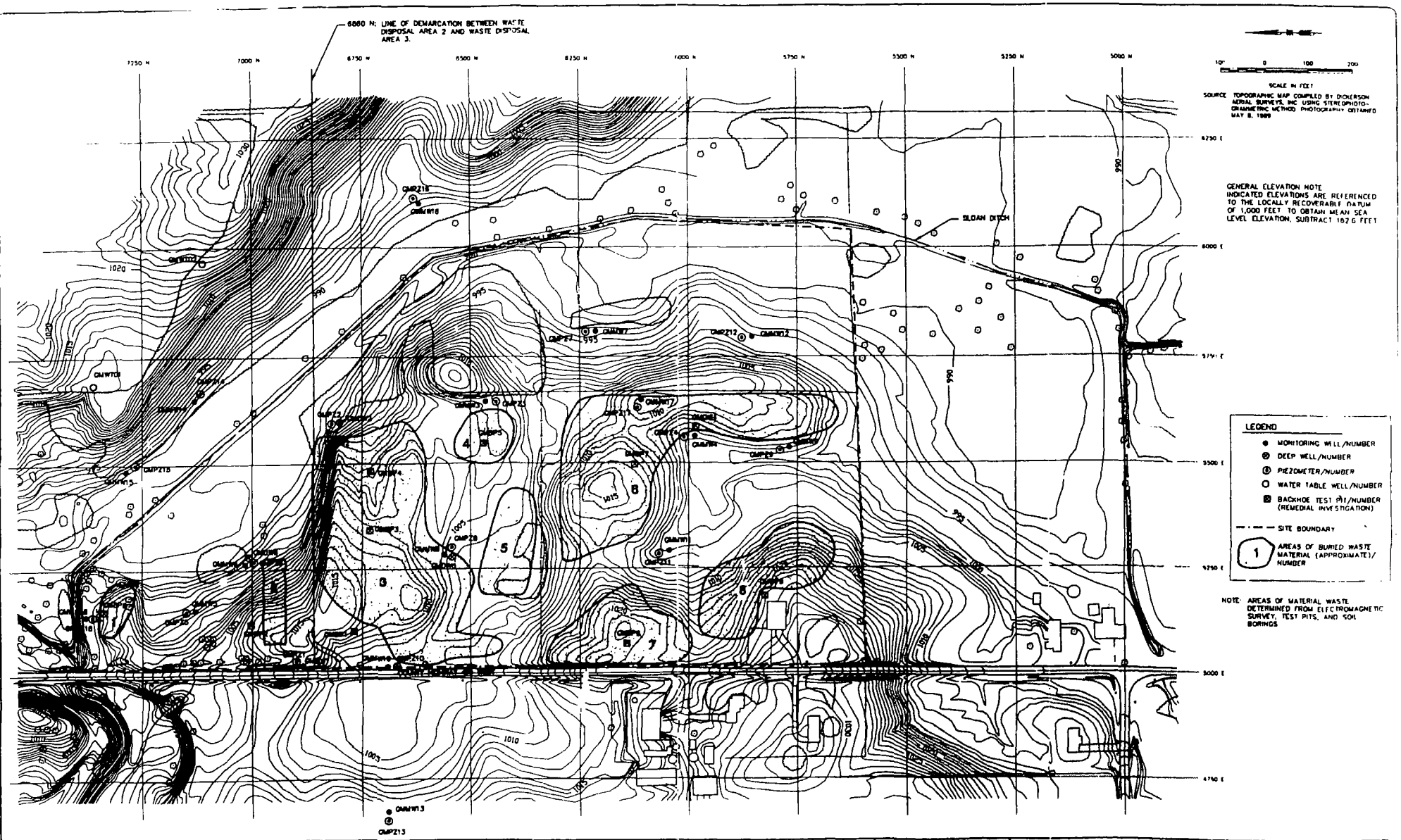
Long-term protectiveness of the remedial action will be achieved when cleanup goals are met and when the remaining institutional control is implemented.

X. NEXT REVIEW

The next five-year review for the Lakeland Disposal Landfill site is required by August 2010, five years from the date of this review.

ATTACHMENTS

ATTACHMENT 1



GERAGHTY & MILLER, INC.
Environmental and Infrastructure
A Halliburton Company

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SCALE VERIFICATION

REV NO.	DATE	DESCRIPTION	BY	APPR

WASTE DISPOSAL AREAS

LAKELAND DISPOSAL
CLAYPOOL, INDIANA

FIGURE 1

ATTACHMENT 2

List of Documents Reviewed

- O&M Manual
- Phase 2 Remedial Action Construction Completion Report
- CERCLA - Record of Decision and ROD Amendment
- Results of Groundwater Monitoring 2002-2005
- Interim Remedial Action Construction Completion Report - Waste Disposal Area 2
- Biennial Site Evaluation

ATTACHMENT 3

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live

Frank O'Bannon
Governor

Lori F. Kaplan
Commissioner

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.state.in.us/idem

August 9, 2000

VIA CERTIFIED MAIL 7099 3220 0003 2545 7592

Mr. Richard Studebaker
ARCADIS Geraghty & Miller, Inc.
126 North Jefferson Street, Ste 400
Milwaukee, WI 53202

Dear Mr. Studebaker:

Re: NPDES Permit Discharge Standards
Lakeland Disposal Landfill Superfund Site
Claypool, Indiana

This letter is written in response to your correspondence dated May 10, 2000. According to your letter, ARCADIS Geraghty & Miller, Inc., on behalf of the Lakeland Disposal Respondents, is requesting NPDES permit discharge standards for the proposed groundwater treatment system at the Lakeland Disposal Landfill Superfund Site in Claypool, Indiana. The Lakeland Disposal site is a National Priorities List (NPL) site, therefore, pursuant to 327 IAC 5-2-4(5), the groundwater treatment system will need to comply with the substantive requirements of the NPDES permit process, but an actual NPDES discharge permit will not be issued. A site location map of the Lakeland Disposal Landfill Superfund Site is appended as Attachment I.

Groundwater samples collected at the Lakeland Disposal Landfill Superfund Site contain low levels of volatile organic compounds and total metals. ARCADIS Geraghty & Miller, Inc. is proposing to install a groundwater treatment system to remediate the groundwater at the site. The groundwater treatment system will consist of a 1,500 gallon influent surge tank, dual sets of particulate bag filter units, a low profile air stripper, and carbon filters, if needed for polishing. The discharge from the groundwater treatment system is expected to be 36,000 gallons per day and will be discharged to Sloan Ditch.

Pursuant to 327 IAC 8-12-2(b), the groundwater treatment system is classified as a Class B wastewater treatment plant. The wastewater treatment plant shall be under the supervision of an operator certified by the Commissioner as required by IC 13-18-11 and 327 IAC 8-12-3. A process flow diagram of the groundwater treatment system is appended as Attachment II.

327 IAC 3-2-1 states that no person shall cause or allow the construction, installation, or modification of any water pollution treatment/control facility or sanitary sewer, without a valid construction permit issued by the commissioner. However, 327 IAC 3-2-4(8) states that a groundwater remediation system utilizing either carbon absorption or air stripping as the mode of treatment, is excluded from needing to obtain a state construction permit.

Effluent limitations and conditions pertaining to the discharge from the groundwater treatment system are derived from 327 IAC 2 and 5 and are appended as Attachment III. The effluent limitations contained in this letter were chosen by comparing Indiana Water Quality based effluent limits and limits determined by technology-based treatment requirements. The most stringent of the limits was chosen.

The authority to impose technology-based treatment requirements is granted by 327 IAC 5-5-2(b)(2). The regulation states that technology-based treatment requirements may be imposed on a case-by-case basis under section 402(a)(1) of the CWA, to the extent that EPA-promulgated effluent limitations are unavailable.

Technology based effluent limits are based on effluent concentrations achievable using best available treatment technology. The best available treatment technology for volatile organic compound removal is considered to be air stripping or granular activated carbon. Best available treatment technology and achievable discharge concentrations were determined by drinking water maximum contaminant levels (MCLs) contained in 327 IAC 8-2-5.A. only reference Volatiles

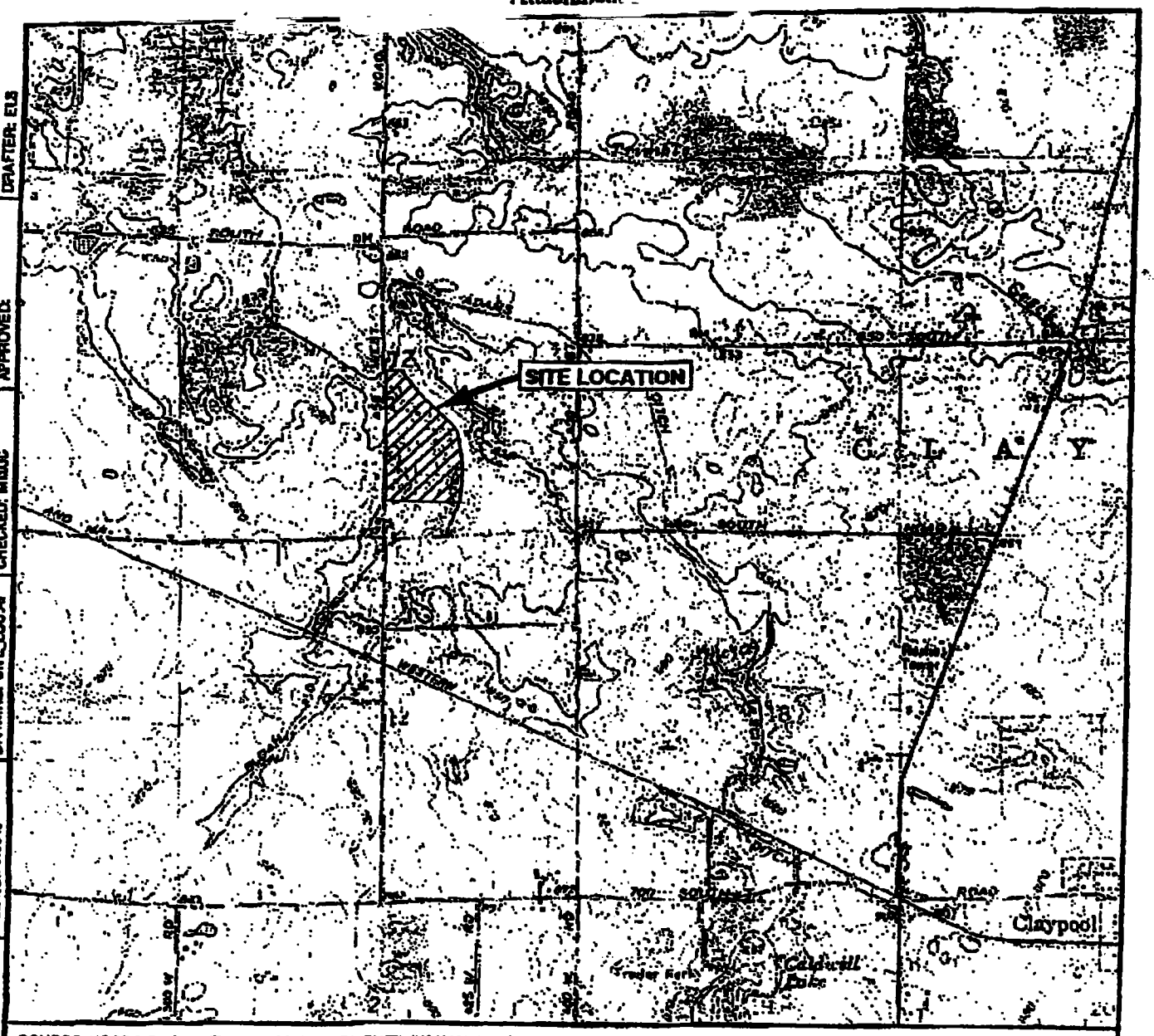
If you have an questions regarding this letter please contact Christina Lowry at (317) 232-8707.

Sincerely,

Steven K. Roush
Section Chief
Industrial NPDES Permits Section
Office of Water Management

CTL/ctl
cc: Jessica Huxhold, OLQ, IDEM
Scott Hansen, Region V, EPA

Attachment 1



SOURCE: USGS 7.5 Minute Topographic Map, BURKET, INDIANA Quadrangle 1981

N

0 1000 2000 4000

SCALE IN FEET

DRAFTER: ELS
APPROVED:
CHECKED: MMJC
DRAWING: SITE_LOC.AI
FILE NO.: C0348
PN: GRAPH_OHCHICAGO
DWG DATE: 07MAY99

ARCADIS
GERAGHTY&MILLER

SITE LOCATION MAP

LAKELAND DISPOSAL
CLAYPOOL, INDIANA

FIGURE
1

Attachment III

I.A. Discharge Limitations

Parameter	Quantity or Monthly Average	Loading Daily Maximum	Units	Quality or Monthly Average	Concentration Daily Maximum	Units	Monitoring Requirements Measurement Frequency	Sample Type
Flow	Report	Report	MGD	—	—	—	Monthly	24 Hr Total
Benzene	—	—	—	Report	0.005	mg/l	Monthly	Grab
Trichloroethene	—	—	—	Report	0.005	mg/l	Monthly	Grab
cis-1,2-Dichloroethene	—	—	—	Report	0.07	mg/l	Monthly	Grab
Cadmium[1]	—	—	—	0.002	0.004	mg/l	Monthly	24 Hr Comp
Copper[1]	—	—	—	0.02	0.05	mg/l	Monthly	24 Hr Comp
Iron[1]	—	—	—	1.7	4.0	mg/l	Monthly	24 Hr Comp
Lead[1]	—	—	—	0.009	0.02	mg/l	Monthly	24 Hr Comp
Nickel[1]	—	—	—	0.07	0.16	mg/l	Monthly	24 Hr Comp
Zinc[1]	—	—	—	0.28	0.61	mg/l	Monthly	24 Hr Comp
Cyanide[2][3][4]	—	—	—	0.004	0.008	mg/l	Monthly	Grab

[1] The above-noted parameters are intended to be analyzed by a test method which will measure the quantity of acid-soluble metal present, however, an approved analytical method for acid-soluble metal is not yet available. Therefore, the Lakeland Disposal Respondents shall measure and report this parameter as total recoverable metal until such method is approved which measures acid-soluble metal.

[2] Cyanide shall be measured and reported as total cyanide. The maximum holding time for cyanide (CN) is 24 hours when sulfide is present and 14 days when sulfide is absent, according to 40 CFR 136.3, Table IB. Therefore, CN is to be monitored by collecting a representative grab sample and analyzing it within 24 hours. Alternatively, if the Lakeland Disposal Respondents can demonstrate the wastewater contains no sulfide, the Lakeland Disposal Respondents may collect a composite sample and analyze it within 14 days.

[3] The monthly average water quality based effluent limit (WQBEL) for cyanide is less than the limit of quantitation (LOQ) as defined below. Compliance will be demonstrated if the monthly average effluent level is less than the LOQ. Daily effluent values that are less than the LOQ, used to determine the monthly average effluent levels less than the LOQ, may be assigned a value of zero (0), unless, after considering the number of monitoring results that are greater than the limit of detection (LOD), and applying appropriate statistical techniques, a value other than zero (0) is warranted.

[4] The daily maximum WQBEL for cyanide is greater than or equal to the LOD but less than the LOQ specified below. Compliance will be demonstrated if the observed effluent concentrations are less than the LOQ.

Parameter	Test Method	LOD	LOQ
Cyanide	335.3	0.005 mg/l	0.016 mg/l

Case-Specific LOD/LOQ

The permittee may determine a case-specific LOD or LOQ using the analytical method specified above, or any other test method which is approved by the Commissioner prior to use. The LOD shall be derived by the procedure specified for method detection limits contained in 40 CFR Part 136, Appendix B, and the LOQ shall be set equal to 3.18 times the LOD. Other methods may be used if first approved by the Commissioner.

a. The pH shall not be less than 6.0 nor greater than 9.0 standard units (s.u.). The pH shall be monitored as follows: by a monthly grab sample.

b. The discharge shall not cause excessive foam in the receiving waters. The discharge shall be essentially free of floating and settleable solids.

c. The discharge shall not contain oil or other substances in amounts sufficient to create a visible film or sheen on the receiving waters.

d. The discharge shall be free of substances that are in amounts sufficient to be unsightly or deleterious or which produce color, odor, or other conditions to such a degree as to create a nuisance.

e. The discharge shall be free of substances that are in amounts sufficient to be acutely toxic to, or to otherwise severely injure or kill aquatic life, other animals, plants or humans.

f. The discharge shall not contain any substance or combination of substances in amounts that will cause or contribute to the growth of aquatic plants or algae to such degree as to create a nuisance, be unsightly or otherwise impair the designated use.

g. Samples taken in compliance with the monitoring requirements above shall be taken at a point representative of the discharge but prior to entry into Sloan Ditch.

B. MONITORING AND REPORTING

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge.

2. Discharge Monitoring Reports

a. For parameters with monthly average water quality based effluent limitations (WQBELs) below the LOQ, daily effluent values that are less than the limit of quantitation (LOQ), used to determine the monthly average effluent levels less than the LOQ, may be assigned a value of zero (0), unless, after considering the number of monitoring results that are greater than the limit of detection (LOD), and applying appropriate statistical techniques, a value other than zero (0) is warranted.

b. For all other parameters for which the monthly average WQBEL is equal to or greater than the LOQ, calculations that require averaging of measurements of daily values (both concentration and mass) shall use an arithmetic mean. When a daily discharge value is below the LOQ, a value of zero (0) shall be used for that value in the calculation to determine the monthly average unless otherwise specified or approved by the Commissioner.

c. Effluent concentrations less than the LOD shall be reported as < (less than) the value of the LOD. For example, if a substance is not detected at a concentration of 0.1 ug/l, report the value as <0.1 ug/l.

d. Effluent concentrations greater than or equal to the LOD and less than the LOQ shall be reported as the actual value and annotated to indicate that the value is not quantifiable.

e. Mass discharge values which are calculated from concentrations reported as less than the value of the limit of detection shall be reported as less than the corresponding mass discharge value.

f. Mass discharge values that are calculated from effluent concentrations greater than the limit of detection shall be reported as the calculated value.

3. Definitions

a. Monthly Average

(1) Weight Basis - The "monthly average" discharge means the total discharge during a calendar month divided by the number of days in the month that the production or commercial facility was discharging. Where less than daily sampling is required by this letter, the monthly average discharge shall be determined by the summation of the measured daily discharges by weight divided by the number of days during the calendar month when the measurements were made.

(2) Concentration Basis - The "monthly average" concentration means the arithmetic average (proportional to flow) of all daily determinations of concentration made during a calendar month. Daily determinations of concentration made using a composite sample shall be the concentration of the composite sample. When grab samples are used, the daily determination of concentration shall be the arithmetic average (weighted by flow value) of all the samples collected during the calendar day.

b. "Daily Maximum" Discharge

(1) Weight Basis - The "daily maximum" discharge means the total discharge by weight during any calendar day.

(2) Concentration Basis - The "daily maximum" concentration means the daily determination of concentration for any calendar day.

c. A 24-hour composite sample consists of at least 3 individual flow-proportioned samples of wastewater, taken by the grab sample method or by an automatic sampler, which are taken at approximately equally spaced time intervals for the duration of the discharge within a 24-hour period and which are combined prior to analysis. A flow proportioned composite sample is obtained by:

didn't say how to be flow proportioned (time weighted is fine) OK?

(1) recording the discharge flow rate at the time each individual sample is taken,

(2) adding together the discharge flow rates recorded from each individuals sampling time to formulate the "total flow" value,

(3) the discharge flow rate of each individual sampling time is divided by the total flow value to determine its percentage of the total flow value,

(4) then multiply the volume of the total composite sample by each individual samples percentage to determine the volume of that individual sample which will be included in the total composite sample.

d. Concentration--The weight of any given material present in a unit volume of liquid. Unless otherwise indicated in this letter, concentration values shall be expressed in milligrams per liter (mg/l).

e. The "Regional Administrator" is defined as the Region V Administrator, U.S. EPA, located at 77 West Jackson Boulevard, Chicago, Illinois 60604.

f. The "Commissioner" is defined as the Commissioner of the Indiana Department of Environmental Management, which is located at the following address: 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana 46206-6015.

4. Test Procedures

The analytical and sampling methods used shall conform to the current version of 40 CFR, Part 136. The approved methods may be included in the texts listed below. However, different but equivalent methods are allowable if they receive the prior written approval of the Commissioner and the U.S. Environmental Protection Agency.

a. Standard Methods for the Examination of Water and Wastewater
19th Edition, 1995, American Public Health Association,
Washington, D.C. 20005.

b. A.S.T.M. Standards, Part 23, Water; Atmospheric Analysis
1972 American Society for Testing and Materials,
Philadelphia, PA 19103.

c. Methods for Chemical Analysis of Water and Wastes
June 1974, Revised, March 1983, Environmental Protection Agency,
Water Quality Office, Analytical Quality Control Laboratory,
1014 Broadway, Cincinnati, OH 45202.

5. Recording of Results

For each measurement or sample taken pursuant to the requirements of this letter, the Lakeland Disposal Respondents shall record the following information:

a. The exact place, date, and time of sampling;

b. The person(s) who performed the sampling or measurements;

c. The dates the analyses were performed;

d. The person(s) who performed the analyses;

e. The analytical techniques or methods used; and

f. The results of all required analyses and measurements.

6. Additional Monitoring

If the Lakeland Disposal Respondents monitor any pollutant at the location(s) designated herein more frequently than required by this letter, using approved analytical methods as specified above, the results of this monitoring shall be included in the calculation and reporting of the values required in this letter. Such increased frequency shall also be indicated. Other monitoring data not specifically required in this letter (such as internal process or internal waste stream data) which is collected by or for the Lakeland Disposal Respondents need not be submitted unless requested by the commissioner.

7. Records Retention

All records and information resulting from the monitoring activities required by this letter, including all records of analyses performed and calibration and maintenance of instrumentation and recording from continuous monitoring instrumentation, shall be retained for a minimum of three (3) years. In cases where the original records are kept at another location, a copy of all such records shall be kept at the site. The three-years shall be extended:

(1) automatically during the course of any unresolved litigation regarding the discharge of pollutants by the Lakeland Disposal Respondents or regarding promulgated effluent guidelines applicable to the Lakeland Disposal Respondents; or

(2) as requested by the Regional Administrator or the Indiana Department of Environmental Management.

II.A. GENERAL CONDITIONS

1. Duty to Comply

The Lakeland Disposal Respondents shall comply with all conditions of this letter in accordance with 327 IAC 5-2-8(1). Any noncompliance constitutes a violation of the Clean Water Act and IC 13 and is grounds for enforcement action.

2. Penalties for Violations of Permit Conditions

Pursuant to IC 13-30, any person who violates a permit condition implementing sections 301, 302, 306, 307, 318, or 405 of the Clean Water Act is subject to a civil penalty not to exceed $25,000 per day of such violation. Any person who willfully or negligently violates permit conditions implementing sections 301, 302, 306, 307, or 308 of the Clean Water Act is subject to a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment for not more than 1 year, or both. If the conviction is for a violation committed after a first conviction of such person under this provision, punishment shall be a fine of not more than fifty thousand dollars ($50,000) per day of violation, or by imprisonment for not more than two (2) years, or both.

Except as provided in permit conditions on "Bypass of Treatment Facilities," Part II.B.2., and "Upset Conditions," Part II.B.3., nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

3. Duty to Mitigate

Pursuant to 327 IAC 5-2-8(3), the Lakeland Disposal Respondents shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this letter.

4. Permit Actions

Pursuant to 327 IAC 5-2-8(4)(A), this letter may be modified, revoked and reissued, or terminated for cause, including, but not limited to, the following:

a. Violation of any terms or conditions of this letter;

b. Obtaining this letter by misrepresentation or failure to disclose fully all relevant facts; or

c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

5. Duty to Provide Information

Pursuant to 327 IAC 5-2-8(4)(B) and 40 CFR 122.41(h), the Lakeland Disposal Respondents shall furnish to the Commissioner, within a reasonable time, any information which the Commissioner may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this letter or to determine compliance. Pursuant to 327 IAC 5-2-8(7)(B), the Lakeland Disposal Respondents shall also furnish to the Commissioner, upon request, copies of records required to be kept by this letter.

6. Toxic Pollutants

Notwithstanding Part II.A.4., if a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Clean Water Act for a toxic pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this letter, this letter shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition in accordance with 327 IAC 5-2-8(5).

7. Containment Facilities

When cyanide or cyanogen compounds are used in any of the processes at this facility, the Lakeland Disposal Respondents shall provide approved facilities for the containment of any losses of these compounds in accordance with the requirements of Water Pollution Control Board Regulation 327 IAC 2-2-1.

8. Operator Certification

The Lakeland Disposal Respondents shall have the waste treatment facilities under the supervision of an operator certified by the Commissioner as required by IC 13-18-11 and 327 IAC 8-12-3.

9. Oil and Hazardous Substance Liability

Nothing in this letter shall be construed to relieve the Lakeland Disposal Respondents from any responsibilities, liabilities, or penalties to which the Lakeland Disposal Respondents is or may be subject to under Section 311 of the Clean Water Act.

10. Property Rights

The issuance of this letter does not convey any property rights of any sort or any exclusive privileges, nor does it authorize any injury to private property or an invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations as stated in 327 IAC 5-2-8(6).

11. Severability

In accordance with 327 IAC 1-1-3, the provisions of this letter are severable and, if any provision of this letter or the application of any provision of this letter to any circumstance is held invalid, the application or such provision to other circumstances and the remainder of this letter shall not be affected thereby.

12. Inspection and Entry

Pursuant to 327 IAC 5-2-8(7), the Lakeland Disposal Respondents shall allow the Commissioner, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

a. Enter upon the Lakeland Disposal Respondents' premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this letter;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this letter;

c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this letter; and

d. Sample or monitor at reasonable times, for the purposes of assuring compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

13. Construction Permit

In accordance with IC 13-14-8-11.6, a discharger is not required to obtain a state permit for the modification or construction of a water pollution treatment or control facility if the discharger has an effective NPDES permit.

If the discharger modifies their existing water pollution treatment or control facility or constructs a new water pollution treatment or control facility for the treatment or control of any new influent pollutant or increased levels of any existing pollutant, then, within thirty (30) days after commencement of operation, the discharger shall file with the Department of Environmental Management a notice of installation for the additional pollutant control equipment and a design summary of any modifications.

The notice and design summary shall be sent to the Office of Water Management, Industrial NPDES Permits Section, P.O. Box 6015, Indianapolis, IN 46206-6015.

B. MANAGEMENT REQUIREMENTS

1. Proper Operation and Maintenance

The Lakeland Disposal Respondents shall at all times maintain in good working order and efficiently operate all facilities and systems for wastewater collection and treatment which are installed or used by the Lakeland Disposal Respondents and which are necessary for achieving compliance with the terms and conditions of this letter in accordance with 327 IAC 5-2-8.

2. Bypass of Treatment Facilities

Pursuant to 327 IAC 5-2-8(11):

a. Bypasses, as defined below, are prohibited, and the Commissioner may take enforcement action against the Lakeland Disposal Respondents for bypass, unless:

(1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage, as defined below;

(2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgement to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance; and

(3) The Lakeland Disposal Respondents submitted notices as required under Part II.B.2.b.; or

(4) The condition under Part II.B.2.d. below is met.

b. The Lakeland Disposal Respondents must provide the Commissioner with the following notice:

(1) If the Lakeland Disposal Respondents know or should have known in advance of the need for a bypass (anticipated bypass), it shall submit prior written notice. If possible, such notice shall be provided at least ten days before the date of the bypass for approval by the Commissioner.

(2) The Lakeland Disposal Respondents shall orally report an unanticipated bypass within 24 hours of becoming aware of the bypass event. The Lakeland Disposal Respondents must also provide a written report within five (5) days of the time the Lakeland Disposal Respondents becomes aware of the bypass event. The written report must contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times; if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate and prevent recurrence of the event.

c. The Commissioner may approve an anticipated bypass, after considering its adverse effects, if the commissioner determines that it will meet the three conditions listed above in Part II.B.2.a. The Commissioner may impose any conditions determined to be necessary to minimize any adverse effects.

d. The Lakeland Disposal Respondents may allow any bypass to occur that does not cause a violation of the effluent limitations in this letter, but only if it also is for essential maintenance to assure efficient operation. This provision will be strictly construed. These bypasses are not subject to the provisions of Part II.B.2.a. and b.

e. "Bypass" means the intentional diversion of a waste stream from any portion of a treatment facility.

f. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

3. Upset Conditions

Pursuant to 327 IAC 5-2-8(12):

a. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based effluent limitations because of factors beyond the reasonable control of the Lakeland Disposal Respondents. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

b. An upset shall constitute an affirmative defense to an action brought for noncompliance with such technology-based effluent limitations if the requirements of Paragraph c of this section, are met.

c. Lakeland Disposal Respondents who wish to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence, that:

(1) An upset occurred and the Lakeland Disposal Respondents have identified the specific cause(s) of the upset, if possible;

(2) The site was at the time being operated in compliance with proper operation and maintenance procedures; and

(3) The Lakeland Disposal Respondents complied with any remedial measures required under Part II.A.3.

d. The Lakeland Disposal Respondents shall orally report an upset within 24 hours of becoming aware of the event. The Lakeland Disposal Respondents must also provide a written report within five (5) days of the time the Lakeland Disposal Respondents become aware of the event. The written report must contain a description of the upset and its cause; the period of upset, including exact dates and times; if the upset has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate and prevent recurrence of the event.

4. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed from or resulting from treatment or control of wastewaters or from the treatment of water at a water supply treatment system shall be disposed of in a manner such as to prevent any pollutant from such materials from entering navigable waters and to be in compliance with all Indiana statutes and regulations relative to liquid and/or solid waste disposal.

C. REPORTING REQUIREMENTS

1. Planned Changes in Facility or Discharge

Pursuant to 327 IAC 5-2-8(10)(F), any anticipated facility expansions, production increases, or process modifications which will result in new, different, or increased discharges of pollutants must be reported by submission of a new NPDES application or, if such changes will not violate the effluent limitations specified in this letter, by advance notice to the Commissioner of such changes. Following such notice, this letter may be modified to revise existing pollutant limitations and/or to specify and limit any pollutants not previously limited.

2. Monitoring Reports

Pursuant to 327 IAC 5-2-8(9) and 327 IAC 5-2-13, monitoring results shall be reported at the specified intervals.

3. Compliance Schedules

Reports of compliance or noncompliance with interim and final requirements contained in any compliance schedule of this letter shall be submitted no later than 14 days following each schedule date. Any reports of noncompliance shall include the cause of noncompliance; any remedial actions taken, and the probability of meeting the next scheduled requirement.

4. Twenty-Four Hour Reporting

Pursuant to 327 IAC 5-2-8(10)(C), the Lakeland Disposal Respondents shall orally report to the Commissioner information on the following types of noncompliance within 24 hours from the time the Lakeland Disposal Respondents becomes aware of such noncompliance:

a. Any unanticipated bypass which exceeds any effluent limitation in this letter;

b. Any noncompliance that may pose a significant danger to human health or the environment. Reports under this item shall be made as soon as the Lakeland Disposal Respondents becomes aware of the noncomplying circumstances;

c. Any upset that causes an exceedance of any effluent limitation in this letter.

The Lakeland Disposal Respondents can make the oral reports by calling (317) 232-8795 during regular business hours or by calling (317) 233-7745 ((888) 233-7745 toll free in Indiana) during non-business hours. A written submission shall also be provided within 5 days of the time the Lakeland Disposal Respondents become aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and, if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce and eliminate the noncompliance and prevent its recurrence. The Commissioner may waive the written report on a case-by-case basis if the oral report has been received within 24 hours. Alternatively the Lakeland Disposal Respondents may submit a "Bypass Fax Report" to IDEM at (317) 232-8637. If a complete fax submittal is sent within 24 hours of the time that the Lakeland Disposal Respondents became aware of the occurrence, then the fax report will satisfy both the oral and written reporting requirements.

5. Other Noncompliance

Pursuant to 327 IAC 5-2-8(10)(D), the Lakeland Disposal Respondents shall report any instance of noncompliance not reported under Part II.C.3. or Part II.C.4., at the time the data is submitted. The report shall contain the information specified in Part II.C.4.

6. Other Information

Pursuant to 327 IAC 5-2-8(10)(E), where the Lakeland Disposal Respondents become aware of a failure to submit any relevant facts or submitted incorrect information in a permit application or in any report, the Lakeland Disposal Respondents shall promptly submit such facts or corrected information to the Commissioner.

7. Changes in Discharge of Toxic Substances

Pursuant to 327 IAC 5-2-9, the Lakeland Disposal Respondents shall notify the Commissioner as soon as it knows or has reason to believe:

a. That any activity has occurred or will occur which would result in the discharge of any pollutant identified as toxic, pursuant to Section 307(a) of the Clean Water Act which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels."

(1) One hundred micrograms per liter (100 ug/l);

(2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,5-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;

(3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or

(4) A notification level established by the Commissioner on a case-by-case basis, either at his own initiative or upon a petition by the Lakeland Disposal Respondents. This notification level may exceed that levels specified in subdivisions (1), (2), or (3) but may not exceed the level which can be achieved by the technology-based treatment requirements applicable to the permittee under the CWA (see 327 IAC 5-5-2).

b. That it has begun or expects to begin to use or manufacture, as an intermediate or final product or byproduct, any toxic pollutant which was not reported in the permit application under 40 CFR 122.21(g)(9).

8. Signatory Requirements

Pursuant to 327 IAC 5-2-22 and 327 IAC 5-2-8(14):

a. All reports required by this letter and other information requested by the Commissioner shall be signed and certified by a person described below or by a duly authorized representative of that person:

(1) For a corporation: by a principal executive defined as a president, secretary, treasurer, any vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy-making functions for the corporation or the manager of one or more manufacturing, production, or operating facilities employing more than two hundred fifty (250) persons or having gross annual sales or expenditures exceeding twenty-five million dollars (25,000,000) (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

(2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

(3) For a Federal, State, or local governmental body or any agency or political subdivision thereof: by either a principal executive officer or ranking elected official.

b. A person is a duly authorized representative only if:

(1) The authorization is made in writing by a person described above.

(2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and

(3) The authorization is submitted to the Commissioner.

c. Certification. Any person signing a document identified under Part II.C.8., shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

9. Availability of Reports

Except for data determined to be confidential under Water Pollution Control Board Regulation 327 IAC 12, all reports prepared in accordance with the terms of this letter shall be available for public inspection at the offices of the Indiana Department of Environmental Management and the Regional Administrator. As required by the Clean Water Act, permit applications, permits, and effluent data shall not be considered confidential.

10. Penalties for Falsification of Reports

IC 13-30 and 327 IAC 5-2-8(14) provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this letter, including monitoring reports or reports of compliance or noncompliance, shall, upon conviction, be punished by a fine or not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live

Frank O'Bannon
Governor

Lori F. Kaplan
Commissioner

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.state.in.us/idem

March 28, 2001

VIA CERTIFIED MAIL 7000 0520 0023 5050 2034

Mr. Edward Copeland
Arcadis Geraghty & Miller
251 E. Ohio Street
Indianapolis, IN 46204

Dear Mr. Copeland:

Re: NPDES Permit Discharge Standards
Lakeland Disposal Landfill Superfund Site
Claypool, Indiana

This letter is written in response to your correspondence dated March 9, 2001. Your letter states that elements of IDEM's August 9, 2000 letter, which contains NPDES permit discharge standards for Lakeland Disposal Landfill Superfund Site, merit further discussion or clarification. You mention in your letter that the effluent limitations for aluminum in the August 9, 2000 letter differ from limits contained in a draft water quality calculation sheet provided by IDEM, dated May 19, 2000.

The water quality based aluminum limits contained in the draft water quality calculation sheet, dated May 19, 2000, were calculated based on an acute aquatic criteria (AAC) of 991 ug/l and a chronic aquatic criteria (CAC) of 243 ug/l. The criteria were developed using the procedure contained in 327 IAC 2-1-8.2 and 8.3. On August 8, 2000, the toxicologist for the Office of Water Quality recalculated the CAC for aluminum in accordance with the procedures in 327 IAC 2-1-8.2 and determined the appropriate value to be 174 ug/l. Using the revised CAC of 174 ug/l and the AAC of 991 ug/l, water quality based effluent limits for aluminum were determined to be a monthly average of 120 ug/l and a daily maximum of 290 ug/l.

Based on the data provided in you letter, it is apparent that the concentration of naturally occurring aluminum in the area far exceeds the water quality based limits for aluminum. Therefore, aluminum limitations have been removed from the NPDES permit discharge standards for *Lakeland Disposal Landfill Superfund Site*. Enclosed is a revised Page 1 of Attachment III.

40 CFR 136 contains the approved analytical methods for pollutants limited in NPDES permits. The approved analytical method, limit of detection (LOD) for the approved analytical method and the limit of quantitation (LOQ) for the approved analytical method for each parameter is included in Table 1. The limit of quantitation is set equal to 3.18 times the limit of detection. If the laboratory you initially contacted is unable to achieve the limit of quantitation as defined below, you may need to contact another lab to conduct your wastewater analysis.

Table 1

Parameter	Analytical Method	LOD	LOQ
Benzene	EPA 602	0.2 ug/l	0.64 ug/l
TCE	EPA 601	0.12 ug/l	0.38 ug/l
Cadmium	EPA 213.2	0.1 ug/l	0.32 ug/l
Copper	EPA 220.2	1 ug/l	3.2 ug/l
Iron	EPA 236.2	1 ug/l	3.2 ug/l
Lead	EPA 239.2	1 ug/l	3.2 ug/l
Nickel	EPA 249.2	1 ug/l	3.2 ug/l
Zinc	EPA 289.2	0.05 ug/l	0.16 ug/l
Cyanide	EPA 335.3	5 ug/l	16 ug/l

Arcadis Geraghty & Miller requests confirmation that the 24 hour composite sample can be time-composite rather than flow-composite based. The definition of 24 hour composite sample is contained on Pages 4 and 5 of Attachment H. It states that 24 hour composite samples shall consist of at least 3 individual flow-proportioned samples taken at approximately equally spaced time intervals for the duration of the discharge within a 24 hour period and combined prior to analysis. A flow proportioned composite sample is obtained by:

(1) recording the discharge flow rate at the time each individual sample is taken,

(2) adding together the discharge flow rates recorded from each individuals sampling time to formulate the "total flow" value,

(3) the discharge flow rate of each individual sampling time is divided by the total flow value to determine its percentage of the total flow value,

(4) then multiply the volume of the total composite sample by each individual samples percentage to determine the volume of that individual sample which will be included in the total composite sample.

Your letter states that a discharge has not yet begun from the groundwater treatment system at Lakeland Disposal Landfill Superfund Site. Arcadis Geraghty & Miller, on behalf of Lakeland Disposal Landfill Superfund Site, will provide 30 days notice to IDEM and USEPA prior to initiating discharge. It should be noted that once the discharge from Lakeland Disposal Landfill Superfund Site commences, the discharge monitoring reports should be submitted directly to Ms. Jessica Huxhold of the Office of Land Quality of IDEM and to Mr. Scott Hansen of the USEPA, Region V.

Arcadis Geraghty & Miller requests confirmation that the five parameters of Section II.C.7.a.(2) of Attachment III do not require specific monitoring of any frequency, unless the Lakeland Disposal Respondents know or have reason to believe them to be present. It is correct that the five parameters of Section II.C.7.a.(2) of Attachment III do not require specific monitoring of any frequency, unless the Lakeland Disposal Respondents know or have reason to believe them to be present

If you have any questions regarding this letter, please contact Christina Lowry at (317) 232-8707.

Sincerely,

Steven K. Roush
Section Chief
Industrial NPDES Permits Section
Office of Water Quality

CTL/ctl
Enclosure
cc: Jessica Huxhold, OLQ, IDEM
Scott Hansen, Region V, EPA

Lakeland Disposal Landfill

MONTHLY REPORT FOR
TREATED WATER DISCHARGE STANDARDS

Lakeland Disposal Respondents
5654 S 450 W
Claypool, Indiana 46510

Month/Year	Outfall No. #
	001

Effluent Characteristics		pH		Flow	Benzene	Trichloroethene	cis-1,2 Dichloroethene	Cadmium	Copper	Iron	Lead	Nickel	Zinc	Cyanide
Discharge Limitations	Monthly Average	N/A		N/A	Report	Report	Report	0.002	0.02	1.7	0.005	0.07	0.20	0.004
	Daily Maximum	6.0-9.0		N/A	0.005	0.005	0.07	0.004	0.05	4	0.02	0.16	0.61	0.008
Sample Type:		Grab		24-hr Total	Grab	Grab	Grab	24 hr Flow Composite	24 hr Flow Composite	24 hr Flow Composite	24 hr Flow Composite	24 hr Flow Composite	24 hr Flow Composite	Grab
Frequency of Analysis		Monthly		Daily	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly
Date	Units	lo	hi	MGD	mg/l	mg/l	mg/l	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
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31														
				Monthly Flow Total (MG)	0.00000									

Signature of Certified Operator:	Certification Number:
Telephone Number:	Date Submitted:

ATTACHMENT 4

OFFICIAL CERTIFIED COPY
TRUE AND COMPLETE

LaShawn Brumfield
Recorder or Deputy
LaShawn Brumfield
Kosciusko County Recorder
State of Indiana

200500006894
Filed for Record in
KOSCIUSKO COUNTY INDIANA
LASHAWN BRUMFIELD
05-19-2005 At 11:29 am.
EASEMENT 26.00

ENVIRONMENTAL PROTECTION EASEMENT AND DECLARATION OF RESTRICTIVE COVENANTS

1. This Environmental Protection Easement and Declaration of Restrictive Covenants is made this 19 day of May, 2005 by and between **CHRISTOPHER DAWSON**, ("Grantor"), having an address at 3218 East Old Road 30, Warsaw, Indiana, and **DANA CORPORATION, DA-LITE SCREEN COMPANY, INC., GENERAL MOTORS CORPORATION, MORTON INTERNATIONAL, INC., OWENS-ILLINOIS, INC., and ROBERTSHAW CONTROLS COMPANY AS INDEMNITOR OF EATON CORPORATION** ("Grantees").

2. WHEREAS, Grantor is the owner of parcels of land located in the County of Kosciusko, State of Indiana, more particularly described on Attachment A attached hereto and made a part hereof (the "Real Property");

3. WHEREAS the Real Property is part of the Lakeland Disposal Service, Inc. Landfill Superfund Site ("Lakeland Site" or "the Site"), which the U.S. Environmental Protection Agency ("U.S. EPA"), pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, placed on the National Priorities List, set forth at 40 C.F.R. Part 300, Appendix B, by publication in the Federal Register on March 31, 1989, (54 Fed. Rea. 13302);

4. WHEREAS, in a Record of Decision dated September 28, 1993 (the "ROD"), the U.S. EPA Region 5 Regional Administrator selected a "remedial action" for the Site, with the concurrence of the State of Indiana, which provides, in part, for the following remedial actions: construction of an Indiana Sanitary Landfill Cap, construction of a soil-bentonite slurry wall and extraction wells for containment of the on-site groundwater in the upper aquifer; storage, treatment if necessary, and discharge of recovered groundwater; construction of a landfill gas collection, extraction and treatments system; removal and offsite treatment and/or disposal of drummed wastes in the hot-spot area of the Site; excavation and removal of landfill wastes and debris encountered during slurry wall construction; construction of an adjustable weir in Sloan Ditch, if necessary, to maintain water levels in adjacent wetlands; a wetlands assessment to determine wetlands that may be impacted by the remedy; and placement of land use and groundwater use restrictions in the Kosciusko County property records;

5. WHEREAS, a Unilateral Administrative Order issued by EPA on April 25, 1994 ("UAO") requires five potentially responsible parties ("the UAO Group") to implement the activities set forth in the Scope of Work for the Remedial Design and Remedial Action work Plan;

OFFICIAL CERTIFIED COPY
TRUE AND COMPLETE

Recorder or Deputy
LaShawn Brumfield
Kosciusko County Recorder
State of Indiana

6. WHEREAS, the parties hereto have agreed 1) to grant a permanent right of access over the Real Property to the Grantees for purposes of implementing, facilitating and monitoring the remedial action; and 2) to impose on the Property use restrictions as covenants that will run with the land for the purpose of protecting human health and the environment;

7. WHEREAS, Grantor wishes to cooperate fully with the Grantees in the implementation of all response actions at the Site; and

8. WHEREAS, Grantees of this easement shall pay to Mr. Dawson the amount of $1.00 (one dollar) in consideration for this environmental easement, as provided in Sect. VII, Para. 8(B) of the Administrative Order on Consent (EPA Docket No. V-W-97-C-397).

NOW THEREFORE

9. GRANT: Grantor, on behalf of itself, its successors and assigns, in consideration of the foregoing premises, does hereby covenant and declare that the Real Property shall be subject to the restrictions on use set forth below, and does give, grant and convey to the Grantees and their assigns, with general warranties of title, 1) the perpetual right to enforce said use restrictions, and 2) an environmental protection easement of the nature and character, and for the purposes hereinafter set forth, with respect to the Real Property.

10. PURPOSE: It is the purpose of this instrument to convey to the Grantees real property rights which will run with the land, to facilitate the remediation of past environmental contamination and to protect human health and the environment by reducing the risk of exposure to contaminants.

11. RESTRICTIONS ON USE: The following covenants, conditions, and restrictions apply to the use of the Real Property, run with the land and are binding on the Grantor:

a) There shall be no use of, or activity at, the Site that may interfere with, damage, or otherwise impair the effectiveness of any response action (or component thereof) selected and/or undertaken by U.S. EPA or any party acting as agent for U.S. EPA, pursuant to Section 104 of CERCLA, except with written approval of U.S. EPA, and consistent with all statutory and regulatory requirements;

b) There shall be no consumptive, extractive, or other use of the groundwater underlying the Site that could cause exposure of humans or animals to the groundwater underlying the Site.

c) There shall be no residential, commercial, or agricultural use of the Site,

including, but not limited to, any on-site excavation, land filling, mining, invasive construction, drilling, and installation of drinking water production wells, except as approved in writing by U.S. EPA;

d) There shall be no installation, removal, construction or use of any buildings, wells, pipes, roads, ditches or any other structures or materials at the Site except as approved in writing by U.S. EPA;

e) There shall be no tampering with, or removal of, the containment or monitoring systems that remain on the Site as a result of implementation of any response action by U.S. EPA, or any party acting as agent for U.S. EPA, and which is selected and/or undertaken by U.S. EPA pursuant to Section 104 of CERCLA;

f) There shall be no activities that cause destruction of on-site vegetation or otherwise could result in degradation of the remedial components; and

g) There shall be no ignition sources on site except as approved in writing by U.S. EPA.

12. MODIFICATIONS OF RESTRICTIONS: The above restrictions may be modified, or terminated in whole or in part, in writing, by the Grantee. If requested by the Grantor, such writing will be executed by Grantee in recordable form.

13. ENVIRONMENTAL PROTECTION EASEMENT: Grantor hereby grants to the Grantees and U.S. EPA an irrevocable, permanent and continuing right of access at all reasonable times to the Real Property for purposes of:

a) Implementing the response actions in the ROD, including but not limited to soil removal; placement, replacement, modification and maintenance of the surface cap and other remedial components specified in the ROD; placement, replacement, modification, operation and maintenance of the ground-water extraction system; monitoring contamination levels in the air, in plants and in animals found on the Real Property, in soil, ground water, surface water, wastewater, or sediments;

b) Verifying any data or information submitted to U.S. EPA;

c) Verifying that no action is being taken on the Real Property in violation of the terms of this instrument or of any federal or state environmental laws or regulations;

d) Monitoring response actions on the Site and conducting investigations relating to contamination on or near the Site, including, without limitation, sampling of air, water, sediments, soils, and specifically, without limitation, obtaining split or duplicate samples;

e) Conducting periodic review of the remedial action, including but not limited to, review required by applicable statutes and/or regulations; and

f) Implementing additional or new response actions if the Grantees, in their sole discretion, determine i) that such actions are necessary to protect the environment because either the original remedial action has proven to be ineffective or because new technology has been developed which will accomplish the purposes of the remedial action in a significantly more efficient or cost effective manner; and ii) that the additional or new response actions will not impose any significantly greater burden on the Real Property or unduly interfere with the then existing uses of the Real Property.

14. RESERVED RIGHTS OF GRANTOR: Grantor hereby reserves unto itself, its successors, and assigns, all rights and privileges in and to the use of the Real Property which are not incompatible with the restrictions, rights and easements granted herein.

15. Nothing in this document shall limit or otherwise affect U.S. EPA's rights of entry and access or U.S. EPA's authority to take response actions under CERCLA, the NCP, or other federal law.

16. NO PUBLIC ACCESS AND USE: No right of access or use by the general public to any portion of the Real Property is conveyed by this instrument.

17. NOTICE REQUIREMENT: Grantor agrees to include in any instrument conveying any interest in any portion of the Real Property, including but not limited to deeds, leases and mortgages, a notice which is substantially the following form:

> **NOTICE: THE INTEREST CONVEYED HEREBY IS SUBJECT TO AN ENVIRONMENTAL PROTECTION EASEMENT AND DECLARATION OF RESTRICTIVE COVENANTS, DATED** May 19, **2005, RECORDED IN THE PUBLIC LAND RECORDS ON** May 19, **2005, IN BOOK** 2002 **PAGE** 12130 **IN FAVOR OF, AND ENFORCEABLE BY, THE UNITED STATES OF AMERICA.**

Within thirty (30) days of the date any such instrument of conveyance is executed, Grantor must provide Grantees with a certified true copy of said instrument and, if it has been recorded in the public land records, its recording reference.

18. ADMINISTRATIVE JURISDICTION: The federal agency having administrative jurisdiction over the interests acquired by Grantees and the United States by this instrument is the EPA.

19. ENFORCEMENT: Grantees shall be entitled to enforce the terms of this instrument by resort to specific performance or legal process. All remedies available hereunder shall be in addition to any and all other remedies at law or in equity, including CERCLA. Enforcement of the terms of this instrument shall be at the discretion of the Grantees, and any forbearance, delay or omission to exercise their rights under this instrument in the event of a breach of any term of this instrument shall not be deemed to be a waiver by the Grantees of such term or of any subsequent breach of the same or any other term, or of any of the rights of the Grantees under this instrument.

20. DAMAGES: Grantees shall be entitled to recover damages for violations of the terms of this instrument, or for any injury to the remedial action, to the public or to the environment protected by this instrument.

21. WAIVER OF CERTAIN DEFENSES: Grantor hereby waives any defense of laches, estoppel, or prescription.

22. COVENANTS: Grantor hereby covenants to and with the United States and its assigns, that the Grantor is lawfully seized in fee simple of the Real Property, that the Grantor has a good and lawful right and power to sell and convey it, and that the Grantor will forever warrant and defend the title thereto and the quiet possession thereof.

23. NOTICES: Any notice, demand, request, consent, approval, or communication that either party desires or is required to give to the other shall be in writing and shall either be served personally or sent by first class mail, postage prepaid, addressed as follows:

To Grantor:

Christopher Dawson
3218 East Old Road 30
Warsaw, IN 46580

To Grantee:

Lakeland Disposal Respondents
c/o ARCADIS Geraghty & Miller, Inc.
251 East Ohio Street, Suite 800
Indianapolis, IN 46204

24. GENERAL PROVISIONS:

a) Controlling law: The interpretation and performance of this instrument shall be governed by the laws of the United States or, if there are no applicable federal laws, by the law of Indiana.

b) Liberal construction: Any general rule of construction to the contrary notwithstanding, this instrument shall be liberally construed in favor of the grant to effect the purpose of this instrument and the policy and purpose of CERCLA. If any provision of this instrument is found to be ambiguous, an interpretation consistent with the purpose of this instrument that would render the provision valid shall be favored over any interpretation that would render it invalid.

c) Severability: If any provision of this instrument, or the application of it to any person or circumstance, is found to be invalid, the remainder of the provisions of this instrument, or the application of such provisions to persons or circumstances other than those to which it is found to be invalid, as the case may be, shall not be affected thereby.

d) Entire Agreement: This instrument sets forth the entire agreement of the parties with respect to the rights and restrictions created hereby, and supersedes all prior discussions, negotiations, understandings, or agreements relating thereto, all of which are merged herein.

e) No forfeiture: Nothing contained herein will result in a forfeiture or reversion of Grantor's title in any respect.

f) Successors: The covenants, terms, conditions, and restrictions of this instrument shall be binding upon, and inure to the benefit of, the parties hereto and their respective personal representatives, heirs, successors, and assigns and shall continue as a servitude running in perpetuity with the Real Property. The term "Grantor", wherever used herein, and any pronouns used in place thereof, shall include the persons and/or entities named at the beginning of this document, identified as "Grantor" and their personal representatives, heirs, successors, and assigns. The term "Grantees", wherever used herein, and any pronouns used in place thereof, shall include the persons and/or entities named at the beginning of this document, identified as "Grantees" and their personal representatives, heirs, successors, and assigns. The rights of the Grantees and Grantor under this instrument are freely assignable, subject to the notice provisions hereof.

g) Termination of Rights and Obligations: A party's rights and obligations under this instrument terminate upon transfer of the party's interest in the Easement or Real Property, except that liability for acts or omissions occurring prior to transfer shall survive transfer.

h) Captions: The captions in this instrument have been inserted solely for convenience of reference and are not a part of this instrument and shall have no effect upon construction or interpretation.

IN WITNESS WHEREOF, Grantor has caused this Agreement to be signed in his name.

Executed this 19 day of MAY, 2005.

By: _____
Christopher Dawson

STATE OF INDIANA)
) ss
COUNTY OF KOSCIUSKO)

On this 19 day of May, 2005, before me, the undersigned, a Notary Public in and for the State of Indiana, duly commissioned and sworn, personally appeared Christopher Dawson, and executed the foregoing instrument, and acknowledged the said instrument to be his free and voluntary act and deed for the uses and purposes therein mentioned, and on oath stated that he is authorized to execute said instrument.

Witness my hand and official seal hereto affixed the day and year written above.

Margaret L Lawrance
Notary Public in and for the
State of Indiana.

My Commission Expires: _____.

MARGARET L. LAWRANCE, NOTARY PUBLIC
RES. KOSCIUSKO COUNTY,
STATE OF INDIANA
MY COMMISSION EXPIRES: FEBRUARY 8, 2012

OFFICIAL CERTIFIED COPY
TRUE AND COMPLETE

JM
Recorder or Deputy
LaShawn Brumfield
Kosciusko County Recorder
State of Indiana

ATTACHMENT A

LEGAL DESCRIPTION OF RESPONDENT LANDOWNER'S PROPERTY

A TRACT OF LAND LOCATED IN THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 12, TOWNSHIP 31 NORTH, RANGE 5 EAST OF THE SECOND PRINCIPAL MERIDIAN, SEWARD TOWNSHIP, KOSCIUSKO COUNTY INDIANA BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A RAILROAD SPIKE MONUMENT AT THE SOUTHWEST CORNER OF THE SOUTHEAST QUARTER OF SECTION 12; THENCE NORTH 00E 00' 00" WEST (BASIS OF BEARINGS) ON THE WEST LINE OF THE SOUTHEAST QUARTER OF SECTION 12, A DISTANCE OF 1322.66 FEET TO THE SOUTHWEST CORNER OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 12; THENCE NORTH 88E 46' 57" EAST ON THE SOUTH LINE OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 12, A DISTANCE OF 656.43 FEET TO THE POINT OF BEGINNING; THENCE NORTH 00E 00' 00" WEST ON THE EAST LINE OF THE WEST HALF OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 12, A DISTANCE OF 485.87 FEET; THENCE SOUTH 40E 28' 43" EAST A DISTANCE OF 104.00 FEET; THENCE SOUTH 00E 24' 37" EAST, A DISTANCE OF 405.27 FEET TO THE SOUTH LINE OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 12, THENCE SOUTH 88E 46' 57" WEST ON SAID SOUTH LINE, A DISTANCE OF 70.44 FEET TO THE POINT OF BEGINNING.

RECEIVED

APR 20 2005

AUDITOR OF KOSCIUSKO COUNTY

OFFICIAL CERTIFIED COPY
TRUE AND COMPLETE

LaShawn Brumfield
Recorder or Deputy
LaShawn Brumfield
Kosciusko County Recorder
State of Indiana

200500005406
Filed for Record in
KOSCIUSKO COUNTY INDIANA
LASHAWN BRUMFIELD
04-20-2005 At 12:27 pm.
EASEMENT 26.00

ENVIRONMENTAL PROTECTION EASEMENT AND DECLARATION OF RESTRICTIVE COVENANTS

1. This Environmental Protection Easement and Declaration of Restrictive Covenants is made this 12th day of April, 2005 by and between **HOMER DOVE**, ("Grantor"), having an address at 5504 S. 450 West, Claypool, Indiana and **DANA CORPORATION, DA-LITE SCREEN COMPANY, INC., GENERAL MOTORS CORPORATION, MORTON INTERNATIONAL, INC., OWENS-ILLINOIS, INC., and ROBERTSHAW CONTROLS COMPANY AS INDEMNITOR OF EATON CORPORATION** ("Grantees").

2. WHEREAS, Grantor is the owner of parcels of land located in the County of Kosciusko, State of Indiana, more particularly described on Attachment A attached hereto and made a part hereof (the "Real Property");

3. WHEREAS the Real Property is part of the Lakeland Disposal Service, Inc. Landfill Superfund Site ("Lakeland Site" or "the Site"), which the U.S. Environmental Protection Agency ("U.S. EPA"), pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, placed on the National Priorities List, set forth at 40 C.F.R. Part 300, Appendix B, by publication in the Federal Register on March 31, 1989, (54 Fed. Rea. 13302);

4. WHEREAS, in a Record of Decision dated September 28, 1993 (the "ROD"), the U.S. EPA Region 5 Regional Administrator selected a "remedial action" for the Site, with the concurrence of the State of Indiana, which provides, in part, for the following remedial actions: construction of an Indiana Sanitary Landfill Cap, construction of a soil-bentonite slurry wall and extraction wells for containment of the on-site groundwater in the upper aquifer; storage, treatment if necessary, and discharge of recovered groundwater; construction of a landfill gas collection, extraction and treatments system; removal and offsite treatment and/or disposal of drummed wastes in the hot-spot area of the Site; excavation and removal of landfill wastes and debris encountered during slurry wall construction; construction of an adjustable weir in Sloan Ditch, if necessary, to maintain water levels in adjacent wetlands; a wetlands assessment to determine wetlands that may be impacted by the remedy; and placement of land use and groundwater use restrictions in the Kosciusko County property records;

5. WHEREAS, a Unilateral Administrative Order issued by EPA on April 25, 1994 ("UAO") requires five potentially responsible parties ("the UAO Group") to implement the activities set forth in the Scope of Work for the Remedial Design and Remedial Action work Plan;

OFFICIAL CERTIFIED COPY
TRUE AND COMPLETE

JM

Recorder or Deputy
LaShawn Brumfield
Kosciusko County Recorder
State of Indiana

6. WHEREAS, the parties hereto have agreed 1) to grant a permanent right of access over the Real Property to the Grantees for purposes of implementing, facilitating and monitoring the remedial action; and 2) to impose on the Property use restrictions as covenants that will run with the land for the purpose of protecting human health and the environment;

7. WHEREAS, Grantor wishes to cooperate fully with the Grantees in the implementation of all response actions at the Site; and

8. WHEREAS, Grantees of this easement shall pay to Mr. Dove the amount of $1.00 (one dollar) in consideration for this environmental easement, as provided in Sect. VII, Para. 8(B) of the Administrative Order on Consent (EPA Docket No. V-W-97-C-397).

NOW THEREFORE

9. GRANT: Grantor, on behalf of itself, its successors and assigns, in consideration of the foregoing premises, does hereby covenant and declare that the Real Property shall be subject to the restrictions on use set forth below, and does give, grant and convey to the Grantees and their assigns, with general warranties of title, 1) the perpetual right to enforce said use restrictions, and 2) an environmental protection easement of the nature and character, and for the purposes hereinafter set forth, with respect to the Real Property.

10. PURPOSE: It is the purpose of this instrument to convey to the Grantees real property rights which will run with the land, to facilitate the remediation of past environmental contamination and to protect human health and the environment by reducing the risk of exposure to contaminants.

11. RESTRICTIONS ON USE: The following covenants, conditions, and restrictions apply to the use of the Real Property, run with the land and are binding on the Grantor:

a) There shall be no use of, or activity at, the Site that may interfere with, damage, or otherwise impair the effectiveness of any response action (or component thereof)selected and/or undertaken by U.S. EPA. or any party acting as agent for U.S. EPA, pursuant to Section 104 of CERCLA, except with written approval of U.S. EPA, and consistent with all statutory and regulatory requirements;

b) There shall be no consumptive, extractive, or other use of the groundwater underlying the Site that could cause exposure of humans or animals to the groundwater underlying the Site. Existing drinking water wells on Respondent's off-site property are not included in this restriction.

c) There shall be no residential, commercial, or agricultural use of the Site,

including, but not limited to, any on-site excavation, land filling, mining, invasive construction, drilling, and installation of drinking water production wells, except as approved in writing by U.S. EPA;

d) There shall be no installation, removal, construction or use of any buildings, wells, pipes, roads, ditches or any other structures or materials at the Site except as approved in writing by U.S. EPA;

e) There shall be no tampering with, or removal of, the containment or monitoring systems that remain on the Site as a result of implementation of any response action by U.S. EPA, or any party acting as agent for U.S. EPA, and which is selected and/or undertaken by U.S. EPA pursuant to Section 104 of CERCLA;

f) There shall be no activities that cause destruction of on-site vegetation or otherwise could result in degradation of the remedial components; and

g) There shall be no ignition sources on site except as approved in writing by U.S. EPA.

12. MODIFICATIONS OF RESTRICTIONS: The above restrictions may be modified, or terminated in whole or in part, in writing, by the Grantee. If requested by the Grantor, such writing will be executed by Grantee in recordable form.

13. ENVIRONMENTAL PROTECTION EASEMENT: Grantor hereby grants to the Grantees and U.S. EPA an irrevocable, permanent and continuing right of access at all reasonable times to the Real Property for purposes of:

a) Implementing the response actions in the ROD, including but not limited to soil removal; placement, replacement, modification and maintenance of the surface cap and other remedial components specified in the ROD; placement, replacement, modification, operation and maintenance of the ground-water extraction system; monitoring contamination levels in the air, in plants and in animals found on the Real Property, in soil, ground water, surface water, wastewater, or sediments;

b) Verifying any data or information submitted to U.S. EPA;

c) Verifying that no action is being taken on the Real Property in violation of the terms of this instrument or of any federal or state environmental laws or regulations;

d) Monitoring response actions on the Site and conducting investigations relating to contamination on or near the Site, including, without limitation, sampling of air, water, sediments, soils, and specifically, without limitation, obtaining split or duplicate samples;

e) Conducting periodic review of the remedial action, including but not limited to, review required by applicable statutes and/or regulations; and

f) Implementing additional or new response actions if the Grantees, in their sole discretion, determine i) that such actions are necessary to protect the environment because either the original remedial action has proven to be ineffective or because new technology has been developed which will accomplish the purposes of the remedial action in a significantly more efficient or cost effective manner; and ii) that the additional or new response actions will not impose any significantly greater burden on the Real Property or unduly interfere with the then existing uses of the Real Property.

14. RESERVED RIGHTS OF GRANTOR: Grantor hereby reserves unto itself, its successors, and assigns, all rights and privileges in and to the use of the Real Property which are not incompatible with the restrictions, rights and easements granted herein.

15. Nothing in this document shall limit or otherwise affect U.S. EPA's rights of entry and access or U.S. EPA's authority to take response actions under CERCLA, the NCP, or other federal law.

16. NO PUBLIC ACCESS AND USE: No right of access or use by the general public to any portion of the Real Property is conveyed by this instrument.

17. NOTICE REQUIREMENT: Grantor agrees to include in any instrument conveying any interest in any portion of the Real Property, including but not limited to deeds, leases and mortgages, a notice which is substantially the following form:

NOTICE: THE INTEREST CONVEYED HEREBY IS SUBJECT TO AN ENVIRONMENTAL PROTECTION EASEMENT AND DECLARATION OF RESTRICTIVE COVENANTS, DATED APRIL 12, 2005, RECORDED IN THE PUBLIC LAND RECORDS ON APRIL 20, 2005, IN BOOK 327 (294) PAGE 88 (576) IN FAVOR OF, AND ENFORCEABLE BY, THE UNITED STATES OF AMERICA.

Within thirty (30) days of the date any such instrument of conveyance is executed, Grantor must provide Grantees with a certified true copy of said instrument and, if it has been recorded in the public land records, its recording reference.

18. ADMINISTRATIVE JURISDICTION: The federal agency having administrative jurisdiction over the interests acquired by Grantees and the United States by this instrument is the EPA.

OFFICIAL CERTIFIED COPY
TRUE AND COMPLETE

JM

Recorder or Deputy
LaShawn Brumfield
Kosciusko Co...

19. ENFORCEMENT: Grantees shall be entitled to enforce the terms of this instrument by resort to specific performance or legal process. All remedies available hereunder shall be in addition to any and all other remedies at law or in equity, including CERCLA. Enforcement of the terms of this instrument shall be at the discretion of the Grantees, and any forbearance, delay or omission to exercise their rights under this instrument in the event of a breach of any term of this instrument shall not be deemed to be a waiver by the Grantees of such term or of any subsequent breach of the same or any other term, or of any of the rights of the Grantees under this instrument.

20. DAMAGES: Grantees shall be entitled to recover damages for violations of the terms of this instrument, or for any injury to the remedial action, to the public or to the environment protected by this instrument.

21. WAIVER OF CERTAIN DEFENSES: Grantor hereby waives any defense of laches, estoppel, or prescription.

22. COVENANTS: Grantor hereby covenants to and with the United States and its assigns, that the Grantor is lawfully seized in fee simple of the Real Property, that the Grantor has a good and lawful right and power to sell and convey it, and that the Grantor will forever warrant and defend the title thereto and the quiet possession thereof.

23. NOTICES: Any notice, demand, request, consent, approval, or communication that either party desires or is required to give to the other shall be in writing and shall either be served personally or sent by first class mail, postage prepaid, addressed as follows:

To Grantor:

Homer Dove
5504 S. 450 West
Claypool, IN 46510

To Grantee:

Lakeland Disposal Respondents
c/o ARCADIS Geraghty & Miller, Inc.
251 East Ohio Street, Suite 800
Indianapolis, IN 46204

24. GENERAL PROVISIONS:

a) Controlling law: The interpretation and performance of this instrument shall be governed by the laws of the United States or, if there are no applicable federal laws, by the law of Indiana.

b) Liberal construction: Any general rule of construction to the contrary notwithstanding, this instrument shall be liberally construed in favor of the grant to effect the purpose of this instrument and the policy and purpose of CERCLA. If any provision of this instrument is found to be ambiguous, an interpretation consistent with the purpose of this instrument that would render the provision valid shall be favored over any interpretation that would render it invalid.

c) Severability: If any provision of this instrument, or the application of it to any person or circumstance, is found to be invalid, the remainder of the provisions of this instrument, or the application of such provisions to persons or circumstances other than those to which it is found to be invalid, as the case may be, shall not be affected thereby.

d) Entire Agreement: This instrument sets forth the entire agreement of the parties with respect to the rights and restrictions created hereby, and supersedes all prior discussions, negotiations, understandings, or agreements relating thereto, all of which are merged herein.

e) No forfeiture: Nothing contained herein will result in a forfeiture or reversion of Grantor's title in any respect.

f) Successors: The covenants, terms, conditions, and restrictions of this instrument shall be binding upon, and inure to the benefit of, the parties hereto and their respective personal representatives, heirs, successors, and assigns and shall continue as a servitude running in perpetuity with the Real Property. The term "Grantor", wherever used herein, and any pronouns used in place thereof, shall include the persons and/or entities named at the beginning of this document, identified as "Grantor" and their personal representatives, heirs, successors, and assigns. The term "Grantees", wherever used herein, and any pronouns used in place thereof, shall include the persons and/or entities named at the beginning of this document, identified as "Grantees" and their personal representatives, heirs, successors, and assigns. The rights of the Grantees and Grantor under this instrument are freely assignable, subject to the notice provisions hereof.

g) Termination of Rights and Obligations: A party's rights and obligations under this instrument terminate upon transfer of the party's interest in the Easement or Real Property, except that liability for acts or omissions occurring prior to transfer shall survive transfer.

h) Captions: The captions in this instrument have been inserted solely for convenience of reference and are not a part of this instrument and shall have no effect upon construction or interpretation.

IN WITNESS WHEREOF, Grantor has caused this Agreement to be signed in his name.

Executed this 12 day of April, 2005

By: Homer R. Dove
Homer Dove

STATE OF INDIANA)
) ss
COUNTY OF KOSCIUSKO)

On this 12th day of April, 2005, before me, the undersigned, a Notary Public in and for the State of Indiana, duly commissioned and sworn, personally appeared Homer Dove, and executed the foregoing instrument, and acknowledged the said instrument to be his free and voluntary act and deed for the uses and purposes therein mentioned, and on oath stated that he is authorized to execute said instrument.

Witness my hand and official seal hereto affixed the day and year written above.

Jacinda L. Gray
Notary Public in and for the
State of Indiana.

My Commission Expires: 3/8/2013

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ID\WRS

OFFICIAL CERTIFIED COPY
TRUE AND COMPLETE

JM
Recorder or Deputy
LaShawn Brumfield
Kosciusko County Recorder
State of Indiana

ATTACHMENT A

LEGAL DESCRIPTION OF RESPONDENT LANDOWNER'S PROPERTY

Tract I:

A tract of land in the West half of the Northwest Quarter of the Southeast Quarter of Section 12, Township 31 North, Range 5 East, more particularly described as follows: Beginning at the Northwest corner of the West half of the Northwest Quarter of the Southeast Quarter of Section 12, Township 31 North, Range 5 East, and running thence East on the North line of said Quarter Quarter Section 612 feet for a true place of beginning; thence running East on the North line of said Quarter Quarter Section for 48 feet to a point; thence running South for 330 feet to a point; thence running West for 660 feet to the West line of said Quarter Quarter Section; thence North on the West line of said Quarter Quarter Section for 130 feet to a point; thence East for 612 feet to a point; thence North for 200 feet to the Place of Beginning.

Tract II:

A tract of land in the West half of the Northwest Quarter of the Southeast Quarter of Section 12, Township 31 North, Range 5 East, more particularly described as follows: Beginning at the Northwest corner of the West half of the Northwest Quarter of the Southeast Quarter of Section 12, Township 31 North, Range 5 East, and running thence South on the West line of the Quarter Quarter Section a distance of 330 feet to the true place of beginning; thence running East 660 feet to a point; thence running South 165 feet to a point; thence running West 660 feet to the West line of said Quarter Quarter Section; thence running North on the West line of said Quarter Quarter Section 165 feet to the Place of Beginning.

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CR 9405 1166

APR 20 2005

AUDITOR OF KOSCIUSKO COUNTY

OFFICIAL CERTIFIED COPY
TRUE AND COMPLETE
LaShawn Brumfield
Recorder or Deputy
LaShawn Brumfield
Kosciusko County Recorder
State of Indiana

200500005405
Filed for Record in
KOSCIUSKO COUNTY INDIANA
LASHAWN BRUMFIELD
04-20-2005 At 12:27 pm.
EASEMENT 25.00

ENVIRONMENTAL PROTECTION EASEMENT AND DECLARATION OF RESTRICTIVE COVENANTS

1. This Environmental Protection Easement and Declaration of Restrictive Covenants is made this 12th day of April, 2005 by and between **DAVID POAGE**, ("Grantor"), having an address at 3700 S. Tinkey Road, Mentone, Indiana, and **DANA CORPORATION, DA-LITE SCREEN COMPANY, INC., GENERAL MOTORS CORPORATION, MORTON INTERNATIONAL, INC., OWENS-ILLINOIS, INC., and ROBERTSHAW CONTROLS COMPANY AS INDEMNITOR OF EATON CORPORATION** ("Grantees").

2. WHEREAS, Grantor is the owner of parcels of land located in the County of Kosciusko, State of Indiana, more particularly described on Attachment A attached hereto and made a part hereof (the "Real Property");

3. WHEREAS the Real Property is part of the Lakeland Disposal Service, Inc. Landfill Superfund Site ("Lakeland Site" or "the Site"), which the U.S. Environmental Protection Agency ("U.S. EPA"), pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, placed on the National Priorities List, set forth at 40 C.F.R. Part 300, Appendix B, by publication in the Federal Register on March 31, 1989, (54 Fed. Rea. 13302);

4. WHEREAS, in a Record of Decision dated September 28, 1993 (the "ROD"), the U.S. EPA Region 5 Regional Administrator selected a "remedial action" for the Site, with the concurrence of the State of Indiana, which provides, in part, for the following remedial actions: construction of an Indiana Sanitary Landfill Cap, construction of a soil-bentonite slurry wall and extraction wells for containment of the on-site groundwater in the upper aquifer; storage, treatment if necessary, and discharge of recovered groundwater; construction of a landfill gas collection, extraction and treatments system; removal and offsite treatment and/or disposal of drummed wastes in the hot-spot area of the Site; excavation and removal of landfill wastes and debris encountered during slurry wall construction; construction of an adjustable weir in Sloan Ditch, if necessary, to maintain water levels in adjacent wetlands; a wetlands assessment to determine wetlands that may be impacted by the remedy; and placement of land use and groundwater use restrictions in the Kosciusko County property records;

5. WHEREAS, a Unilateral Administrative Order issued by EPA on April 25, 1994 ("UAO") requires five potentially responsible parties ("the UAO Group") to implement the activities set forth in the Scope of Work for the Remedial Design and Remedial Action work Plan;

6. WHEREAS, the parties hereto have agreed 1) to grant a permanent right of access over the Real Property to the Grantees for purposes of implementing, facilitating and monitoring the remedial action; and 2) to impose on the Property use restrictions as covenants that will run with the land for the purpose of protecting human health and the environment;

7. WHEREAS, Grantor wishes to cooperate fully with the Grantees in the implementation of all response actions at the Site; and

8. WHEREAS, Grantees of this easement shall pay to Mr. Poage the amount of $1.00 (one dollar) in consideration for this environmental easement, as provided in Sect. VII, Para. 8(B) of the Administrative Order on Consent (EPA Docket No. V-W-97-C-397).

NOW THEREFORE

9. GRANT: Grantor, on behalf of itself, its successors and assigns, in consideration of the foregoing premises, does hereby covenant and declare that the Real Property shall be subject to the restrictions on use set forth below, and does give, grant and convey to the Grantees and their assigns, with general warranties of title, 1) the perpetual right to enforce said use restrictions, and 2) an environmental protection easement of the nature and character, and for the purposes hereinafter set forth, with respect to the Real Property.

10. PURPOSE: It is the purpose of this instrument to convey to the Grantees real property rights which will run with the land, to facilitate the remediation of past environmental contamination and to protect human health and the environment by reducing the risk of exposure to contaminants.

11. RESTRICTIONS ON USE: The following covenants, conditions, and restrictions apply to the use of the Real Property, run with the land and are binding on the Grantor:

a) There shall be no use of, or activity at, the Site that may interfere with, damage, or otherwise impair the effectiveness of any response action (or component thereof) selected and/or undertaken by U.S. EPA or any party acting as agent for U.S. EPA, pursuant to Section 104 of CERCLA, except with written approval of U.S. EPA, and consistent with all statutory and regulatory requirements;

b) There shall be no consumptive, extractive, or other use of the groundwater underlying the Site that could cause exposure of humans or animals to the groundwater underlying the Site.

c) There shall be no residential, commercial, or agricultural use of the Site,

Recorder or Deputy
LaShawn Brumfield
Kosciusko County Recorder
State of Indiana

including, but not limited to, any on-site excavation, land filling, mining, invasive construction, drilling, and installation of drinking water production wells, except as approved in writing by U.S. EPA;

d) There shall be no installation, removal, construction or use of any buildings, wells, pipes, roads, ditches or any other structures or materials at the Site except as approved in writing by U.S. EPA;

e) There shall be no tampering with, or removal of, the containment or monitoring systems that remain on the Site as a result of implementation of any response action by U.S. EPA, or any party acting as agent for U.S. EPA, and which is selected and/or undertaken by U.S. EPA pursuant to Section 104 of CERCLA;

f) There shall be no activities that cause destruction of on-site vegetation or otherwise could result in degradation of the remedial components; and

g) There shall be no ignition sources on site except as approved in writing by U.S. EPA.

12. MODIFICATIONS OF RESTRICTIONS: The above restrictions may be modified, or terminated in whole or in part, in writing, by the Grantee. If requested by the Grantor, such writing will be executed by Grantee in recordable form.

13. ENVIRONMENTAL PROTECTION EASEMENT: Grantor hereby grants to the Grantees and U.S. EPA an irrevocable, permanent and continuing right of access at all reasonable times to the Real Property for purposes of:

a) Implementing the response actions in the ROD, including but not limited to soil removal; placement, replacement, modification and maintenance of the surface cap and other remedial components specified in the ROD; placement, replacement, modification, operation and maintenance of the ground-water extraction system; monitoring contamination levels in the air, in plants and in animals found on the Real Property, in soil, ground water, surface water, wastewater, or sediments;

b) Verifying any data or information submitted to U.S. EPA;

c) Verifying that no action is being taken on the Real Property in violation of the terms of this instrument or of any federal or state environmental laws or regulations;

d) Monitoring response actions on the Site and conducting investigations relating to contamination on or near the Site, including, without limitation, sampling of air, water, sediments, soils, and specifically, without limitation, obtaining split or duplicate samples;

e) Conducting periodic review of the remedial action, including but not limited to, review required by applicable statutes and/or regulations; and

f) Implementing additional or new response actions if the Grantees, in their sole discretion, determine i) that such actions are necessary to protect the environment because either the original remedial action has proven to be ineffective or because new technology has been developed which will accomplish the purposes of the remedial action in a significantly more efficient or cost effective manner; and ii) that the additional or new response actions will not impose any significantly greater burden on the Real Property or unduly interfere with the then existing uses of the Real Property.

14. RESERVED RIGHTS OF GRANTOR: Grantor hereby reserves unto itself, its successors, and assigns, all rights and privileges in and to the use of the Real Property which are not incompatible with the restrictions, rights and easements granted herein.

15. Nothing in this document shall limit or otherwise affect U.S. EPA's rights of entry and access or U.S. EPA's authority to take response actions under CERCLA, the NCP, or other federal law.

16. NO PUBLIC ACCESS AND USE: No right of access or use by the general public to any portion of the Real Property is conveyed by this instrument.

17. NOTICE REQUIREMENT: Grantor agrees to include in any instrument conveying any interest in any portion of the Real Property, including but not limited to deeds, leases and mortgages, a notice which is substantially the following form:

NOTICE: THE INTEREST CONVEYED HEREBY IS SUBJECT TO AN ENVIRONMENTAL PROTECTION EASEMENT AND DECLARATION OF RESTRICTIVE COVENANTS, DATED APRIL 12, 2005, RECORDED IN THE PUBLIC LAND RECORDS ON APRIL 20, 2005, IN BOOK 9405 PAGE 166 IN FAVOR OF, AND ENFORCEABLE BY, THE UNITED STATES OF AMERICA.

Within thirty (30) days of the date any such instrument of conveyance is executed, Grantor must provide Grantees with a certified true copy of said instrument and, if it has been recorded in the public land records, its recording reference.

18. ADMINISTRATIVE JURISDICTION: The federal agency having administrative jurisdiction over the interests acquired by Grantees and the United States by this instrument is the EPA.

19. ENFORCEMENT: Grantees shall be entitled to enforce the terms of this instrument by resort to specific performance or legal process. All remedies available hereunder shall be in addition to any and all other remedies at law or in equity, including CERCLA. Enforcement of the terms of this instrument shall be at the discretion of the Grantees, and any forbearance, delay or omission to exercise their rights under this instrument in the event of a breach of any term of this instrument shall not be deemed to be a waiver by the Grantees of such term or of any subsequent breach of the same or any other term, or of any of the rights of the Grantees under this instrument.

20. DAMAGES: Grantees shall be entitled to recover damages for violations of the terms of this instrument, or for any injury to the remedial action, to the public or to the environment protected by this instrument.

21. WAIVER OF CERTAIN DEFENSES: Grantor hereby waives any defense of laches, estoppel, or prescription.

22. COVENANTS: Grantor hereby covenants to and with the United States and its assigns, that the Grantor is lawfully seized in fee simple of the Real Property, that the Grantor has a good and lawful right and power to sell and convey it, and that the Grantor will forever warrant and defend the title thereto and the quiet possession thereof.

23. NOTICES: Any notice, demand, request, consent, approval, or communication that either party desires or is required to give to the other shall be in writing and shall either be served personally or sent by first class mail, postage prepaid, addressed as follows:

To Grantor:

David Poage
3700 S. Tinkey Road
Mentone, IN 46539

To Grantee:

Lakeland Disposal Respondents
c/o ARCADIS Geraghty & Miller, Inc.
251 East Ohio Street, Suite 800
Indianapolis, IN 46204

24. GENERAL PROVISIONS:

a) Controlling law: The interpretation and performance of this instrument shall be governed by the laws of the United States or, if there are no applicable federal laws, by the law of Indiana.

b) Liberal construction: Any general rule of construction to the contrary notwithstanding, this instrument shall be liberally construed in favor of the grant to effect the purpose of this instrument and the policy and purpose of CERCLA. If any provision of this instrument is found to be ambiguous, an interpretation consistent with the purpose of this instrument that would render the provision valid shall be favored over any interpretation that would render it invalid.

c) Severability: If any provision of this instrument, or the application of it to any person or circumstance, is found to be invalid, the remainder of the provisions of this instrument, or the application of such provisions to persons or circumstances other than those to which it is found to be invalid, as the case may be, shall not be affected thereby.

d) Entire Agreement: This instrument sets forth the entire agreement of the parties with respect to the rights and restrictions created hereby, and supersedes all prior discussions, negotiations, understandings, or agreements relating thereto, all of which are merged herein.

e) No forfeiture: Nothing contained herein will result in a forfeiture or reversion of Grantor's title in any respect.

f) Successors: The covenants, terms, conditions, and restrictions of this instrument shall be binding upon, and inure to the benefit of, the parties hereto and their respective personal representatives, heirs, successors, and assigns and shall continue as a servitude running in perpetuity with the Real Property. The term "Grantor", wherever used herein, and any pronouns used in place thereof, shall include the persons and/or entities named at the beginning of this document, identified as "Grantor" and their personal representatives, heirs, successors, and assigns. The term "Grantees", wherever used herein, and any pronouns used in place thereof, shall include the persons and/or entities named at the beginning of this document, identified as "Grantees" and their personal representatives, heirs, successors, and assigns. The rights of the Grantees and Grantor under this instrument are freely assignable, subject to the notice provisions hereof.

g) Termination of Rights and Obligations: A party's rights and obligations under this instrument terminate upon transfer of the party's interest in the Easement or Real Property, except that liability for acts or omissions occurring prior to transfer shall survive transfer.

h) Captions: The captions in this instrument have been inserted solely for convenience of reference and are not a part of this instrument and shall have no effect upon construction or interpretation.

IN WITNESS WHEREOF, Grantor has caused this Agreement to be signed in his name.

Executed this 12 day of APRIL, 2005.

By: DAVID W POAGE
David Poage

STATE OF INDIANA)
) ss
COUNTY OF KOSCIUSKO)

On this 12th day of April, 2005, before me, the undersigned, a Notary Public in and for the State of Indiana, duly commissioned and sworn, personally appeared David Poage, and executed the foregoing instrument, and acknowledged the said instrument to be his free and voluntary act and deed for the uses and purposes therein mentioned, and on oath stated that he is authorized to execute said instrument.

Witness my hand and official seal hereto affixed the day and year written above.

Notary Public in and for the
State of Indiana.

My Commission Expires: 3/8/2013

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ID\WRS

OFFICIAL CERTIFIED COPY
TRUE AND COMPLETE

Recorder or Deputy
LaShawn Brumfield
Kosciusko County Recorder
State of Indiana

ATTACHMENT A

LEGAL DESCRIPTION OF RESPONDENT LANDOWNER'S PROPERTY

Parcel 1: A tract of land in the West half of the Northwest Quarter of the Southeast Quarter of Section 12, Township 31 North, Range 5 East, more particularly described as follows:

Beginning at the Northwest corner of the West half of the Northwest Quarter of the Southeast Quarter of Section 12, Township 31 North, Range 5 East, and running thence South on the West line of the Quarter Quarter Section a distance of 660 feet for a true Place of Beginning; thence running East for 660 feet to a point; thence running South for 330 feet to a point; thence running West for 660 feet to the West line of said Quarter Quarter Section; thence running North on the West line of said Quarter Quarter Section for 330 feet to the Place of Beginning, and containing five acres, more or less.

Parcel 2: A tract of land in the West half of the Northwest Quarter of the Southeast Quarter of Section 12, Township 31 North, Range 5 East, more particularly described as follows:

Beginning at the Northwest corner of the West half of the Northwest Quarter of the Southeast Quarter of Section 12, Township 31 North, Range 5 East, and running thence South on the West line of the Quarter Quarter Section a distance of 495 feet to the true Place of Beginning; thence running East 660 feet to a point; thence running South 165 feet to a point; thence running West 660 feet to the West line of said Quarter Quarter Section; thence running North on the West line of said Quarter Quarter Section 165 feet to the Place of Beginning.

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ATTACHMENT 5

EPA Accepting Comments for Review of Cleanup of Superfund Site

Claypool, Indiana

U.S. Environmental Protection Agency is accepting comments for its five-year review of the **Lakeland Disposal Service Inc. Superfund site** in Claypool, Ind. The Superfund law requires regular review of sites where cleanup construction is complete but hazardous waste remains and is managed on-site. These reviews, usually every five years, are done to ensure that the cleanup remedy continues to protect human health and the environment.

EPA will be accepting comments and information concerning the site until June 1, 2005. Please contact:

Scott Hansen, Remedial Project Manager
EPA Region 5
77 West Jackson Blvd. (P-19J)
Chicago, IL 60604
(800) 621-8431, weekdays 9 a.m. – 4:30 p.m., Central Time

Site Information Repository:
Koscuisko County Health Department
100 West Center Street
Warsaw, IN 46580

ATTACHMENT 6

y Entered for Taxation
ject to Final Acceptance
Transfer this _____

JAN 28 2003

[illegible]
FOR of KOSCIUSKO COUNTY

JM

LASHAWN BRUMFIELD 4P
KOSCIUSKO COUNTY
F 2003012133 Page 1 of 4
DAN Date 01/28/2003 Time 16:19:37
RECORDING FEE: 17.00

CONSERVATION EASEMENT AGREEMENT

CR 200212:501

This Conservation Easement Agreement (the "Agreement") is entered into as of the 17 day of December, 2002, between the **COUNTY OF KOSCIUSKO** ("Grantor") whose address is 100 West Center Street, Warsaw, Indiana, and **DANA CORPORATION, DA-LITE SCREEN COMPANY, INC., GENERAL MOTORS CORPORATION, MORTON INTERNATIONAL, INC., OWENS-ILLINOIS, INC. and ROBERTSHAW CONTROLS COMPANY** as indemnitor of **EATON CORPORATION** (collectively referred to herein as the "Grantee") whose address is c/o ARCADIS Geraghty & Miller, Inc., 251 East Ohio Street, Suite 800, Indianapolis, Indiana 46204.

The circumstances underlying the execution of this Agreement are as follows:

A. The Grantor is the owner of all right, title and interest in and to certain land located in Claypool, Indiana, as more particularly described on attached Exhibit A (the "Land").

B. The Grantor desires to grant to Grantee a perpetual exclusive easement on the Land for the sole purpose of constructing and maintaining a wetlands, subject to the terms and conditions contained herein, including access to the Land suitable for pedestrian and vehicular ingress and egress from and to the public roadway adjacent to the Land known as County Highway 450 South.

NOW THEREFORE, for good and valuable consideration in the amount of $1.00, the receipt and sufficiency of which are hereby acknowledged, Grantor and Grantee agree as follows:

1. Grant of Conservation Easement. The Grantor hereby grants and conveys to the Grantee a perpetual, exclusive easement to and for the benefit of the Grantee, Grantee's licensees, invitees, employees, agents, contractors, successors and assigns, on, over and across the Land for the sole purpose of constructing and maintaining a wetlands in accordance with all applicable laws and regulations and to meet the requirements and approval of the United States Environmental Protection Agency and the Indiana Department of Environmental Management and their successors and assigns. Such easement shall include the right to access the Land for pedestrian and vehicular ingress and egress from and to the public roadway adjacent to the Land

known as County Highway 450 South, including, but not limited to, the right to use any easements appurtenant to the Land.

2. Uses. Grantors, their assigns and successors, are and shall be prohibited from utilizing the Land for any purpose which is inconsistent with its use as wetlands or interferes with any of Grantee's activities on the Land in connection with this Agreement, including but not necessarily limited to filling, draining, hunting or any activity that disrupts or damages the flora, fauna or other ecological elements of the wetlands.

3. Real Covenants. The easements, terms and other conditions in this Agreement shall be real covenants which shall run with the land and be binding upon and inure to the benefit of the parties and their respective successors and assigns.

4. Governing Laws; Severability. This Agreement shall be construed by and governed in accordance with the laws of the State of Indiana. If any provision of this Agreement or portion hereof is determined to be invalid or unenforceable, the remainder of this Agreement shall not be affected thereby and each provision of this Agreement shall be valid and enforceable to the fullest extent permitted by law.

5. Modification. No modification or amendment to this Agreement shall be valid unless the same is in writing and executed by the parties hereto.

6. Notices. All notices shall be sent in writing to the parties at their addresses in the first paragraph hereof, sent by certified mail, postage prepaid, return receipt requested.

7. Non-Dedication. Nothing contained in this Agreement shall be deemed to be a gift or dedication of any portion of either party's property to the general public or for any public use or purpose whatsoever, it being the intention of the parties hereto and their successors and assigns that nothing in this Agreement, express or implied, shall confer upon any other person, other than the parties hereto and their successors and assigns, any rights or remedies under or by reason of this Agreement.

8. No Waiver or Release of Claims. This Agreement only deals with the grant and conveyance of a conservation easement as set forth herein. This Agreement does not affect, or in any way compromise or release any right, claim or cause of action which the parties may have with regard to any other matter.

[SIGNATURE PAGE TO FOLLOW]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed as of the day and year first above written.

WITNESSES:

Sue Ann Mitchell
Name: Sue Ann Mitchell

Cathy M. Tucker
Name: Cathy M. Tucker

GRANTOR:

COUNTY OF KOSCIUSKO

By: Avis B Hunter
Name: AVIS B. GUNTER
Its: Commissioner - President

STATE OF INDIANA)
) ss.
COUNTY OF KOSCIUSKO)

The foregoing instrument was acknowledged before me this 17th day of December, 2002, by Avis B. Gunter, the Pres. Board of Commissioners of the County of Kosciusko.

NOTARIAL SEAL INDIANA

Nanette L. Newland
Notary Public, Kosciusko County, IN

My Commission Expires: 10/21/08

EXHIBIT A

Legal Description of the Land

A TRACT OF LAND LOCATED IN THE EAST ONE-HALF OF SECTION 12, TOWNSHIP 31 NORTH, RANGE 5 EAST OF THE SECOND PRINCIPAL MERIDIAN, SEWARD TOWNSHIP, KOSCIUSKO COUNTY, INDIANA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF THE NORTHEAST QUARTER OF SECTION 12, AS EVIDENCED BY A PK NAIL; THENCE NORTH 89°06'31" EAST (BASIS OF BEARINGS) ON THE SOUTH LINE OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 12, A DISTANCE OF 1315.64 FEET TO A RAILROAD RAIL POST AT THE SOUTHWEST CORNER OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 12 BEING THE POINT OF BEGINNING; THENCE NORTH 38°48'33" WEST A DISTANCE OF 619.09 FEET TO A 5/8" X 30" LONG IRON REINFORCING ROD; THENCE NORTH 18°34'54" EAST, A DISTANCE OF 118.14 FEET MORE OR LESS TO THE CENTER LINE OF THE JERIMIAH ADAMS DITCH; (THE FOLLOWING SEVEN CALLINGS ARE ON THE CENTERLINE OF THE JERIMIAH ADAMS DITCH AND THE DISTANCES ARE MORE OR LESS); THENCE SOUTH 77°11'48" EAST A DISTANCE OF 334.88 FEET; THENCE SOUTH 74°36'16" EAST, A DISTANCE OF 204.32 FEET; THENCE SOUTH 77°33'35" EAST, A DISTANCE OF 197.07 FEET; THENCE SOUTH 77°46'41" EAST, A DISTANCE OF 394.11 FEET; THENCE SOUTH 72°07'42" EAST, A DISTANCE OF 214.67 FEET; THENCE SOUTH 53°43'08" EAST, A DISTANCE OF 196.41 FEET; THENCE SOUTH 51°15'30" EAST, A DISTANCE OF 219.48 FEET TO THE SOUTH LINE OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 12; THENCE SOUTH 89°04'53" WEST ON SAID SOUTH LINE, A DISTANCE OF 1284.82 FEET TO THE POINT OF BEGINNING.

TRACT CONTAINS 12.34 ACRES MORE OR LESS.

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EDWRS